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ABSTRACT

The first of 3 final reports from the Department of Education's School Finance Project, this volume presents in 4 chapters, 7 appendixes, 8 maps, and 32 tables the results of analyses of factors affecting elementary and secondary educational finance. Chapter 1 introduces the report and outlines how it is organized. Chapter 2 offers an overview of major economic, demographic and fiscal trends for the nation as a whole, while chapter 3 describes the analytical framework used in the study and notes the study's limitations. Chapter 4 presents the study's results. The chapter first discusses state-by-state demographic trends and projections (used as indicators of educational demand), including school-age population, public and private enrollment, ethnic and income composition, and migration; it then focuses on state and local factors (used as indicators of educational resources supply), including expenditures, dependence on federal aid, and fiscal effort and capacity. The chapter concludes with an assessment of state financial prospects, dividing the states into three groups, those with favorable, average, or unfavorable funding prospects. The appendixes provide methodological discussions and additional data and projections for demographic and fiscal factors. (RW)

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ED229884

Prospects for Financing Elementary/Secondary Education in the States

Congressionally Mandated Study of School Finance

Final Report: Volume 1

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MA
RI
CT
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OR
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Report to Congress from
the Secretary of Education

December 1982

EA 015 679

Congressionally Mandated Study of School Finance
A Final Report to Congress
from the Secretary of Education

THE PROSPECTS FOR FINANCING
ELEMENTARY/SECONDARY EDUCATION IN THE STATES

Department of Education
T.H. Bell, Secretary

Office of Educational Research and Improvement
Donald J. Senese, Assistant Secretary

School Finance Project
Joel D. Sherman, Associate Director

December, 1982

Executive Summary

This report presents the funding prospects for public elementary and secondary education for the fifty States and the District of Columbia. The assessment of funding prospects is based on analyses of past population and school enrollment trends, population projections for each State, and fiscal developments that have influenced school spending levels in the States during the past ten years. These analyses suggest that several critical issues in the financing of elementary/secondary education will emerge over the next decade.

- Anticipated growth in the school-age population will lead to additional resource requirements for elementary/secondary education over the next several years.

The next ten to fifteen years will be quite different from the last decade for elementary/secondary education finance, largely as a result of the projected reversal of enrollment declines. The 1970s and early 1980s were a period when the country's school-age population dropped markedly. These declines contributed significantly to the growth in real expenditures per pupil. Between 1985 and 2000, however, the school-age population is projected to increase by about 18 percent for the nation. Without the benefit of declining enrollments, many States will be required to increase total revenues for schools more rapidly than in the past decade in order to maintain current levels of real spending per pupil for elementary/secondary education.

- Elementary/secondary education will face revenue constraints arising from competition from other sectors for public resources.

Since 1975, the State-local public sector has been relatively stable, while the share of these funds allocated for elementary/secondary education has declined steadily. In the early 1970s, spending for local schools comprised nearly 30 percent of State-local expenditures; by 1975, it was down to 27 percent and by 1981, it had dropped to less than 25 percent. This shrinking share for elementary and secondary education reflected both the decline in school enrollments and a shift in resources to other public functions. Between 1975 and 1981, the increase in the proportion of State-local spending devoted to health, hospitals, and welfare virtually equalled the decline in the share of expenditures for elementary/secondary education.

The future direction of public spending is difficult to predict, but the rapid growth that characterized the late 1960s and early 1970s is unlikely to recur. With a relatively stable public sector, a school-age population that will remain small relative to total population, and a rapid growth in the adult population over 65 (who may generate a demand for different public services), elementary/secondary education may face increasing competition for State and local revenues over the next several years.

These developments provide the general setting for elementary/secondary education finance over the next decade-and-a-half. This national picture, however, captures neither the significant demographic and fiscal diversity among States and school districts nor differences in current resource levels and future funding prospects. The following points should be underscored:

- Current expenditures per pupil for elementary/secondary education differ at the extremes by a factor of about two-and-a-half to one. After a long period of convergence, average spending differences among the States are now increasing.

- The prospects for financing schools in the States vary significantly. Assessments of future spending levels range from favorable to unfavorable, based on the match or mismatch between the projected demand for education and the State-local resource base.

Fourteen States and the District of Columbia have favorable funding prospects. Expenditures per pupil are projected to be ten percent or more above the national average in future years. Most of the States in this group are in the Northeast and Midwest. In 1980, these States contained more than one-third of the country's school-age population and about the same proportion of public school enrollments. By 2000, these States' share of the school-age population is projected to decline to less than 27 percent, but a high proportion of school-age children are likely to come from minority backgrounds.

The States in this group share several characteristics that suggest favorable funding prospects. Almost all the States have high fiscal capacity, exert a moderate to high effort for education, and have high levels of expenditure per pupil; in most, the school-age population is projected to grow slowly or to decline over the next decade-and-a-half. With stable or declining enrollments, these States should be able to maintain their high levels of spending for elementary/secondary education in the future.

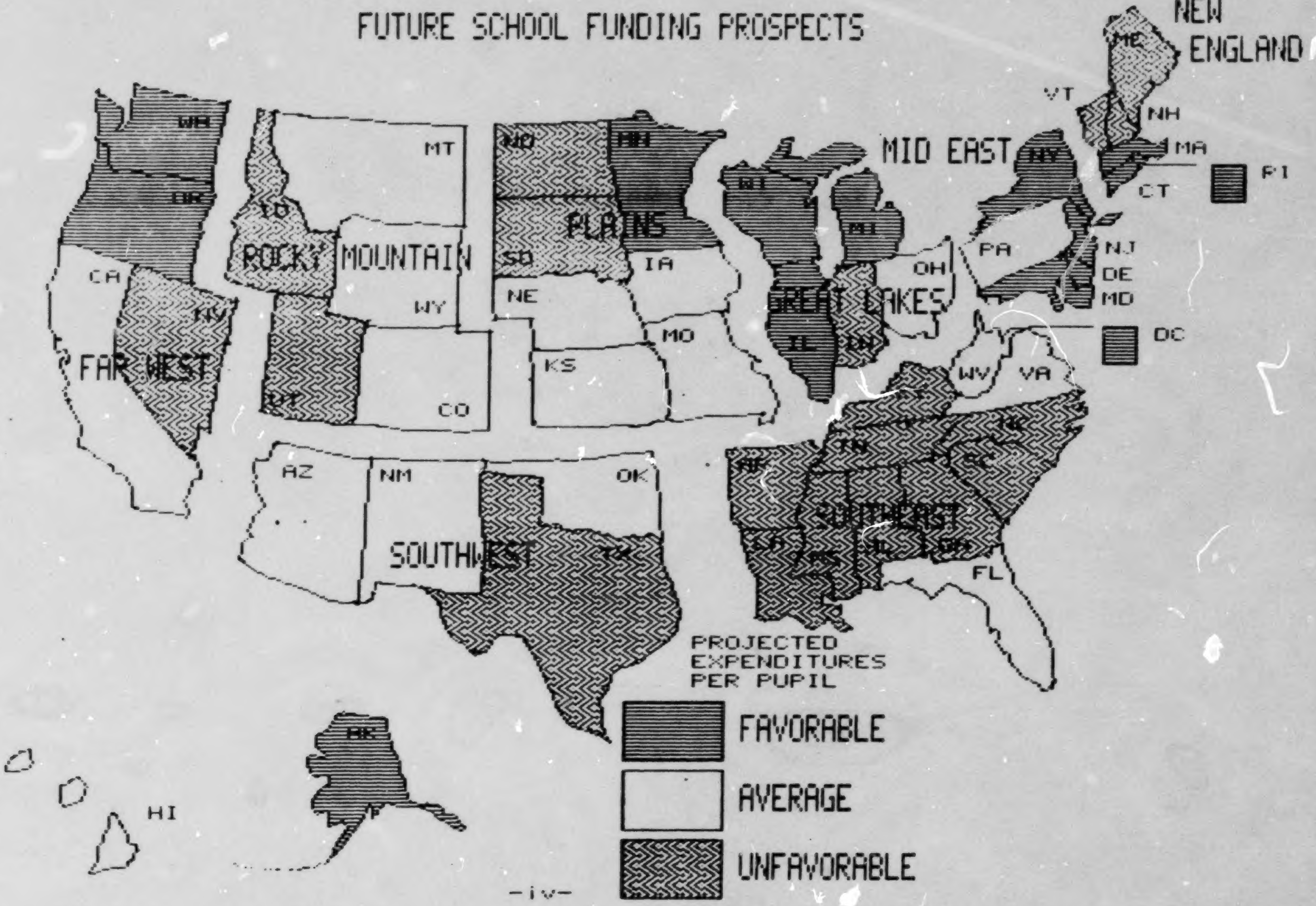
Many States in this group contain large city school districts where funding prospects are less favorable than the prospects for the State as a whole. Several of these States may also be undergoing structural changes in their economies that may limit their ability to finance schools at existing levels. However, even with expenditure cutbacks, the States in this group should continue to have relatively high expenditures per pupil.

Seventeen States have average funding prospects. Expenditures per pupil are projected to be within ten percent of the national average. The States in this group are located in every region of the country except New England. The proportion of the country's school-age population in the States is projected to rise very slightly over the next several years, from about 37 percent in 1980 to about 38 percent in the year 2000.

This group of States tends to be more heterogenerous in its demographic and fiscal characteristics than the other two groups. While fiscal capacity tends to be around the national average, school tax effort and dependence on Federal aid range from low to high. In some States, the school-age population is projected to decline, but in others it is projected to grow rapidly in the near future. On balance, however, the combination of factors in each State suggests that expenditure levels will differ from the national average by less than 10 percent over the next decade.

Nineteen States have unfavorable funding prospects. Expenditures per pupil are projected to remain ten percent or more below the national average. The States are located mostly in the Southeast and northern New England. In 1980, their school-age population comprised 29 percent of the national total; by 2000, the proportion of school-age children in these States will exceed 35 percent. With the addition to this category of four States, including California, whose assessments were closest to being judged unfavorable, more than half the country's school-age population will be located in these States in the year 2000.

Several demographic and fiscal characteristics suggest unfavorable funding prospects for these States. Most have low fiscal capacity and low expenditures per pupil, and many are heavily dependent on Federal aid for school revenues. Nearly all the States are projected to experience large increases in their school-age populations between 1985 and the end of the century, with increasing proportions of children likely to be from low-income and minority backgrounds. The mismatch between the demand for elementary/secondary education and the supply of resources appears to be most pronounced in these States; as a result, expenditures per pupil are likely to be more than ten percent below the national average in future years.


FUTURE SCHOOL FUNDING PROSPECTS
NEW ENGLAND
MID EAST
PLAINS
ROCKY MOUNTAIN
FAR WEST
GREAT LAKES
SOUTHWEST
SOUTHEAST
WA
OR
CA
NV
ID
MT
WY
UT
CO
AZ
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HI
PROJECTED EXPENDITURES PER PUPIL
FAVORABLE
AVERAGE
UNFAVORABLE

- Interstate differences in expenditures for education are likely to be maintained — and may well increase — in the future.

States vary significantly in their fiscal capacity to support education and State capacity has begun to diverge in recent years, after a long period of convergence in both personal income per capita and tax capacity. Moreover, a higher proportion of States that are projected to experience large increases in school-age population have lower fiscal capacities than States that are projected to have stable or declining school-age populations.

Fiscal effort for education has similarly begun to diverge over the last few years. Nearly one-third of the States that are projected to have large increases in school-age populations devote a relatively low proportion of their personal income to elementary/secondary education. In some States characterized by low effort, school tax effort has declined markedly in recent years. In contrast, nearly all States where the school-age population is projected to grow more slowly or to show continued decline exert average or above-average tax effort for elementary/secondary education.

Federal aid has declined in real terms and has shifted away somewhat from States with low fiscal capacity, low expenditures, and high projected increases in school-age populations toward States with moderate to high capacity and expenditures, and lower projected growth. As a result, Federal aid does not have the effect of reducing spending differences among States as much as in previous years.

CHARACTERISTICS OF STATES
GROUPED BY FUNDING PROSPECTS

State	Projected Increase in Demand 1985-2000	Student Need 1980	Fiscal Capacity 1981	Education Effort 1980-81	Federal Share of Education Revenues 1980-81	Education Expenditures 1980-81
Funding Prospects Are Good						
Alaska	MH	L	H*	H	H	H
Connecticut	L	M	H	L	L	H
Delaware	L	M	MH	MH	H	H
D.C.	L	H	H	L	H	H
Illinois	L	M	MH	M	MH	H
Maryland	L	L	H	M	LM	H
Massachusetts	L	M	MH	H	L	H
Michigan	L	M	MH	H	LM	H
Minnesota	M	L	M	H	L	H
New Jersey	L	H	H	MH	L	H
New York	L	H	MH	H	L	H
Oregon	H	L	LM	H	MH	H
Rhode Island	L	M	M	LM	L	H
Washington	MH	L	MH	L	M	H
Wisconsin	LM	L	M	H	L	H
Funding Prospects Are Average						
Arizona	H	M	LM	H	H	M
California	M**	M	H	L	L	L
Colorado	H	L	MH	H	L	M
Florida	MH	H	M	L	H	M
Hawaii	H	L	MH	L	H	MH
Iowa	M	L	M	MH	L	H
Kansas	MH	L	M	M	L	MH
Missouri	LM	M	LM	L	MH	L
Montana	H	M	LM*	H	M	MH
Nebraska	MH	L	M	M	L	M
New Mexico	H	H	L*	H	H	LM
Ohio	L	M	M	M	L	LM
Oklahoma	H	M	M*	M	H	LM
Pennsylvania	L	M	M	MH	L	H
Virginia	LM	M	M	LM	MH	LM
West Virginia	LM	H	L*	H	H	L
Wyoming	H	L	H*	H	L	M
Funding Prospects Are Unfavorable						
Alabama	MH	H	L	L	H	L
Arkansas	MH	H	L	LM	H	L
Georgia	M	H	L	LM	H	L
Idaho	H	M	L	MH	M	L
Indiana	LM	L	LM	M	L	L
Kentucky	MH	H	L	M	H	L
Louisiana	MH	H	L*	L	H	L
Maine	MH	M	L	H	MH	L
Mississippi	H	H	L	L	H	L
Nevada	H	L	H*	L	L	L
New Hampshire	H	L	M	M	L	L
North Carolina	LM	H	L	LM	H	L
North Dakota	H	M	M*	L	L	L
South Carolina	M	H	L	MH	H	L
South Dakota	H	H	L	LM	H	L
Tennessee	MH	H	L	L	H	L
Texas	H	H	M*	M	H	L
Utah	H	L	L	H	L	L
Vermont	MH	L	L	H	L	L

*States where 1980 index of tax capacity is 10 points or more higher than 1980 income index per capita. On tax capacity Montana, Oklahoma and Texas are classified as H, Louisiana, New Mexico and North Dakota as MH, and West Virginia as LM.

**California's ranking was reduced from MH to M due to the large increase in private school enrollment.

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PREFACE

This volume is the first of four final reports prepared for the Secretary of Education by the School Finance Project, as required by Section 1203 of the Education Amendments of 1978.

The report reflects the collective efforts of many staff members and contractors who worked together to produce the assessment of the prospects for financing elementary/secondary education over the next several years. The leadership of Emerson Elliott, Will S. Myers, and Joel D. Sherman is especially acknowledged. In the present volume, particular credit goes to Esther O. Tron, Joel D. Sherman, Mary F. Williams, and Amy Hutner, who authored the chapters of the report concerning State finance prospects. Michael Hodge and Linda Addison had major responsibility for the report on finance prospects in large urban school districts that will follow as a supplement to this report. Mark Euritt and Mark Markowitz assisted the Project in the computer programming phase of its work. Diane Carthens and Martha Jean Willis helped enormously in typing the text; Norma Lindsay and Kimberly Small provided helpful administrative support. Bradford N. Worthington of Management Systems Design prepared the computer graphic presentations used in the report.

The research presented in this volume is based on analyses prepared by the School Finance Project, demographic projections developed by George Masnick and John Pitkin at the Joint Center for Urban Studies at MIT and Harvard University, and projections of expenditures by Jerry Miner and Seymour Sacks at Syracuse University. Special appreciation is reserved for Cynthia Ward, now at the Community College of Rhode Island, who did an excellent job of conceptualizing and seeing the demographic projections study through to a successful conclusion.

Finally, the report benefitted enormously from the advice and comments of Department staff, most notably Betty Demarest and George Youstra in OERI, Jay Noell and Sandy Brown in OPBE and colleagues outside the Department including Denis Doyle, Margaret Goertz, Forbis Jordan, and George Peterson. Their assistance to the School Finance Project is greatly appreciated.

Donald J. Senese
Assistant Secretary
Office of Educational Research and
Improvement

Chapter 1

INTRODUCTION

A study of the prospects for school finance for the next decade starts out with a severe burden -- its time frame. The end of the period is not far enough removed from current events to ignore them, nor is it long enough to permit the possibility of a significantly different future. The 1980s have been hailed by some experts as the transition decade when elementary/secondary education takes a new direction. For example, a few see the decade as the one in which the introduction of new communications technology will obviate the need for schools as we know them today. Other observers, however, have depicted the 1980s in more traditional terms as not much more than the further extrapolation of past experience, recognizing that the extrapolation may encompass more than mere marginal change.

While cognizant of the limitations of forecasts of the future, Congress nonetheless required in Section 1203 of the Education Amendments of 1978 "... the conduct of studies necessary to understand and analyze the trends and problems affecting the financing of elementary and secondary education, both public and non-public, including the prospects for adequate financing during the next ten years." This report is designed to fulfill the requirements of the Congressional mandate through an analysis of demographic, social, economic, and fiscal trends and developments in each of the 50 States and the District of Columbia. It is the first in a series of reports that synthesize the findings of studies conducted by the School Finance Project as part of the mandate of the 1978 Education Amendments.

An assessment of the prospects for funding elementary/secondary education must recognize at the outset that the financing of schooling takes places within a much larger societal context. Education is such an extensive enterprise that it is bound to be affected by a broad range of demographic, social, economic, fiscal, legal, political, and technological developments. The precise linkages, however, between these developments and the financing of schools are often indirect. This report on the prospects for funding schools touches briefly on some of these broad developments but focuses on those factors likely to be the most important for financing elementary/secondary education. Three major areas are emphasized: (1) the national economy; (2) demographic trends and projections; and (3) developments in the State-local sector in general, with particular emphasis on developments in educational finance.

National economic developments affect the financing of education in a number of critical ways, most importantly in their impact on the ability of governments to raise revenues for education, as well as other public services. Recent history suggests a close connection between the national economy and the size of the public sector. As the economy grew during the 1950s, 1960s and the early 1970s, expansion of the public sector occurred smoothly; revenues increased as a result of economic growth, increased tax rates and imposition of new taxes. It was a time when voters and their elected representatives generally appeared to be willing to support larger public sector expenditures. In contrast, the period of slower economic growth and relatively high inflation of the late 1970s, along with changing attitudes about public expenditures, has produced a decline in the public sector's share of Gross National Product (GNP).

Demographic developments, including changing fertility and mortality rates, and patterns of population migration, also affect the prospects for financing schools in several important ways. First, they influence the size, composition, and location of the constituency for school services, i.e., they shape the demand for public -- and private -- education. Second, they suggest other groups in the population that, based on age or social and economic characteristics, are potential competitors for public resources. Third, they suggest potential sources of political support for and opposition to public expenditures in general, and educational expenditures in particular.

Finally, current patterns of school expenditures must be taken into account in any assessment of future developments. Previous trends can contribute to an explanation of the development of the current situation and provide hints as to future trends. Moreover, expenditure trends are affected by a host of developments in State-local finance. An understanding of these developments is essential to assess both the present situation and the possible future of educational finance.

Organization of the Report

The balance of this report contains three chapters. Chapter Two presents a brief overview of major economic, demographic, and fiscal developments for the nation as a whole. It focuses primarily on the most recent past as these developments are likely to have the greatest relevance for the 1980s. A discussion of future demographic trends is also included.

Chapter Three provides a framework for assessing the prospects for financing schools in each of the 50 States over the next two decades. Because of the major role that States and their local governments play in providing financial resources for elementary/secondary education, it is necessary to distinguish State-by-State developments from general national trends. The framework presented in this section helps organize information about State demographic and fiscal developments and provides a basis for assessing individual State funding prospects. Demographic projections represent a proxy for the demand for schooling while fiscal data represent a proxy for the supply of school funds.

Chapter Four of the report provides a more detailed description of State-by-State trends, using the framework outlined in Chapter Three. Projected and past trends in school-age population are examined along with past trends in public and private school enrollments, the composition of the school population, interstate and regional migration, and the changing age structure of the population. The section also reviews fiscal developments pertaining to the general State-local public sector and to the education sector in particular. Several factors are singled out for attention: fiscal capacity; fiscal effort for education and for all purposes; current expenditures for all functions and for education; dependence on Federal aid. The balance of the chapter assesses the prospects for financing schools in each of the 50 States.

Accompanying the report are several appendices. These appendices include a description of funding prospects in each of the 50 States, developed, in part, from the demographic and fiscal tables that are included with the assessment.

Chapter 2

NATIONAL SETTING FOR SCHOOL FINANCE IN THE 1980s

The Economy and the Public Sector

The history of the past two decades reveals the central importance of the national economy to the ability of all levels of government to provide financial resources for public services, including elementary/secondary education. Most analyses of the current period suggest that this decade promises to be substantially different from the period of the 1960s, when the Federal Government escalated its financial support for the elementary/secondary school sector, and from the late 1970s when the growth in this support came to a halt. Several aspects of the current economic situation point to problems that affect the ability of States and localities to support public education. Economic growth which earlier had facilitated the growth of the public sector has significantly slowed.

In the last few years the economy has been characterized by the following features: (1) low growth in Gross National Product; (2) declining worker productivity; (3) inflation, which encourages consumption at the expense of savings and investment; (4) high interest rates, which discourage investment and raise the cost of borrowing for public purposes; (5) high energy costs; (6) increased competition in world and domestic markets, which has contributed to weakening the local economic base in many communities; and (7) unemployment, which not only results in declining public revenues but increases the competition for public funds among governmental functions. A continuation of any or all of these conditions will constrain revenue for all types of governments, including school systems.

Starting with the view that the condition of the economy is critical in generating sufficient revenues for the financial support for elementary/secondary education, the overall prospects for the 1980s are uncertain. If the economy continues its sluggish performance, the consequences for school finance are apt to be adverse. If and when the economy takes an upturn, prospects will be significantly brighter.

Economic prospects for the 1980s vary among regions and States. In the industrial heartland from Pennsylvania to Illinois, the future may depend on the ability of these States to diversify their economic bases. In a few States in the Northeast, prospects which appeared dim a few years ago have brightened with growth in the high technology sector, increased service-related activities, and increased defense spending. In the

Sunbelt, the economic base is less dependent on heavy manufacturing and the capital stock is much newer, so that States in this region do not face the problems of replacing antiquated capital equipment and restructuring their economies. Prospects in the farmbelt States are a function of farm prices, which tend to be quite variable. Energy-rich States enjoy bright prospects as do most States in the West. Possible exceptions are Washington and Oregon whose economies have traditionally been volatile.

Demographic Changes: The 1970s

The decade of the 1970s resulted in some major demographic developments that have an important bearing on the financing of elementary and secondary education in the decade ahead. These involve changes in the age structure and characteristics of the general population, and the movement of people both among and within the nation's regions and States. The following developments had an important impact on the size and location of elementary and secondary school enrollments:

- Decline in school-age population.
- Shift in population from the Frostbelt to the Sunbelt States.
- Migration of population to non-metropolitan areas.
- Continued suburbanization.
- Regional shift in poverty population from the Southeast and Southwest to the Northeast.
- Increased foreign immigration to the United States.
- Aging of the population.

o Decline in the School-Age Population. While the population for the nation as a whole grew by 11.4 percent between 1970 and 1980, the school-age population, children age 5-17, decreased by approximately five million, or about 10 percent of the 1970 total. As a result of this decline, the proportion of people in the school-age group decreased markedly, from 26 percent in 1970 to 21 percent in 1980. The decline was evident in all regions of the country except the Southwest and Rocky Mountain regions, but the rate of decline was significantly higher in the Northeast than in other parts of the country. (See Table II-1).

o Shift in Population from Frostbelt to Sunbelt States. Interstate migration during the 1970s from the North and East to the South and West, coupled with higher fertility rates in the southern and western regions of the country, produced a shift in population from Frostbelt to Sunbelt States, which was a reversal of earlier trends. While States in New England, the Great Lakes, and the Plains regions showed only small gains in total

Table II-1

School-Age Population by Region, 1970-1980

Region	Percent Change 1970-80	Percent of School-Age Population 1970	1980
New England	-14.8%	5.6%	5.3%
Mideast	-17.6	19.9	18.1
Great Lakes	-16.1	20.4	19.0
Plains	-17.2	8.2	7.5
Southeast	- 2.2	21.8	23.6
Southwest	+ 4.6	8.5	9.8
Rocky Mountain	+ 2.2	2.6	3.0
Far West	- 4.9	13.0	13.7
UNITED STATES	- 9.7	100.0	100.0

Sources: U.S. Department of Commerce, 1970 Census of Population, Volume 1 Characteristics of Population and 1980 Census of Population and Housing, Provisional Estimates of Social, Economic and Housing Characteristics, States and Selected Metropolitan Statistical Areas, PHC 80-S1-1.

population and States in the Mideast declined in population, growth in the southern and western regions was well above the national average. Consequently, the proportion of people living in the four regions of the South and West increased from 44 to 50 percent of the total during the decade.

The school-age population showed similar regional shifts. With large declines in the North and East, modest declines in the Southeast and Far West, and small to moderate increases in many States in the Southwest and Rocky Mountain regions, the share of the school-age population in southern and western States rose from 45 to 50 percent between 1970 and 1980. (See Table II-1).

o Movement of Population to Non-Metropolitan Areas. Historically, population movement in this country has been from non-metropolitan to metropolitan areas (SMSAs). During the 1970s, there was a reversal of this trend. Population growth in SMSAs was lower than for the country as a whole and for non-metropolitan regions of the country. Metropolitan areas grew by only 10 percent, compared to 11 percent for the nation, and 15 percent for non-metropolitan areas.

o Movement of People from Cities to Suburbs. Despite the non-metropolitan growth, the country's population continues to be concentrated in metropolitan areas (75 percent in 1980), and to be increasingly located in the suburban portions of metropolitan areas. Between 1970 and 1980, population in the nation's central cities was essentially unchanged, while suburban areas increased by 18 percent. As a result, the central city share of metropolitan population dropped from 44 percent to 40 percent over the ten-year period.

The shift in population from central cities to suburbs was reflected in all of the country's regions. In the North and East, central city populations declined, while suburban populations grew slowly. In the South and West, there was growth in both cities and suburbs, but suburban growth was significantly greater. School-age children have been increasingly concentrated in the suburbs in recent years; they are likely to remain there during the 1980s.

o Increased Immigration to the United States from Asia and Latin America. Until the mid-1960s, immigration policy strongly favored countries in northern and western Europe. However, changes in immigration policy established since that time have significantly changed the numbers and kinds of immigrants seeking entry into the United States. The number of legal immigrants admitted annually rose from 297,000 in 1965 to over 800,000 in 1980. The percentage of immigrants from Europe dropped sharply, while the percentage of Asians increased more than fivefold. Contributing to the Asian influx was the admission of nearly 500,000 Indo-Chinese refugees as permanent residents between 1975 and 1980. (Butz, McCarthy, Morrison, and Vaiana, 1982) The influx of Cuban and Haitain refugees in the last few years contributed to the increase in the proportion of immigrants from Latin America.

In addition to legal immigration, there has been a significant increase in illegal immigration. As many as 3.5 to 5 million illegal residents were estimated to be living in the United States in 1978 (Butz et al, 1982), with Mexicans constituting about one-half of this illegal population. It is further estimated that the ranks of illegal aliens may be growing by nearly half a million people per year.

o Shift in Poor Children to the Northeast. While the number of school-age children from poverty families has been falling, the decline since 1970 has been slower than for the age group as a whole. As a result, the proportion of poor children increased slightly. In 1970, the highest concentrations of low income children were in the South, and that was still true in 1980. However, the differences between the regions were narrowing. In some northern, industrial States both the numbers and proportions of poor children rose during the 1970s, while in the South they both decreased. The trend toward increased poverty in the Northeast was particularly evident because these increases were accompanied by large declines in the total school-age population.

o Aging of the Population. A major development of the 1970s was the change in the age structure of the population, a function of both declines in fertility and increased longevity. The number of children in the under-5 age group decreased by approximately 800,000 or nearly five percent over the decade, and the 5-17 age group dropped by five million, or about 10 percent. A number of southern and western States did not follow the national trend, but for many States in the Northeast and Midwest, the decline in the number of children under 18 was precipitous.

At the other end of the age spectrum, the growth was quite dramatic. The over-65 population increased by about 5.5 million between 1970 and 1980, or about 21 percent. Nearly every State had significant increases in the number of elderly, with ranges from a low of 9.8 percent in New York and Iowa to more than 70 percent in States such as Nevada, Arizona, Hawaii, and Florida. Nationally, the proportion of those over 65 increased from 9.8 percent in 1970 to 11.3 percent in 1980, but in States such as Florida, the increases were more dramatic.

In summary, national trends in the 1970s brought a decrease in the number of children, but a slight increase in the proportion of children from poverty backgrounds.

There were, however, marked differences among the States and regions with regard to trends affecting schools. The decline in school-age population was less in the South, where the number of poor children declined at an above average rate. The North meanwhile, had greater population declines but increases in poor children. As a result, regional differences in the proportions of poor students narrowed.

Demographic Forecasts for the 1980s

Population shifts over the next decade are likely, for the most part, to reflect many of the developments of the 1970s, with the exception of the reversal of the school-age population decline. Projections of demographic changes prepared for the School Finance Project by the MIT - Harvard Joint Center for Urban Studies suggest the following:

- Growth in school-age population starting around 1985.
- Continued out-migration of people from the North and East to the South and West. By the year 2000, nearly 60 percent of the population -- and over 60 percent of the school-age cohort -- will be in the country's four southern and western regions, compared with 50 percent for each group in 1980.
- Continued aging of the population. Between 1985 and 2000, the number of people over 65 is projected to increase by about 19 percent and the proportion of adults in this age cohort should be more than 12 percent of the total.

o Under 18 Population. An increase in fertility rates which started in 1975 will have important consequences for the size of the school-age population. This upturn in births is projected to continue for the next several years. This "baby boomlet" is not expected to produce as many children as the "baby boom" of the 1950s and 1960s, but between 1985 and 1990, the under-18 population is forecast to increase by nearly 5 percent. Between 1990 and 2000, estimates are for increases of over 7 percent. For the school-age population alone, projections of growth are even higher -- over 5 percent and 12 percent for the two periods. In all, the school-age population is expected to increase by nearly 20 percent between 1985 and 2000 and to maintain its share of total population.

o Other Age Groups of the Population. Other youth sectors of the population are projected to experience decline. The under-five age group, for example, while forecast to increase by 4 percent between 1985 and 1990, is then projected to decline again between 1990 to 2000 to a level slightly below 1985. This will result in a decrease in the proportion of the population under five from 8 percent to 7 percent between 1985 and 2000. The 18-24 population is projected to decline by more than 10 percent between

1985 and 1990 and then show virtually no change between 1990 and 2000. For the full 1985-2000 period, the college-age cohort is projected to decline as a share of the total population from 12 percent to 9 percent. At the other end of the age spectrum, the over-65 population is expected to continue to grow quite rapidly (by about 19 percent) during the next decade-and-a-half. (See Table II-2.)

Several implications for public schools can be drawn from these projections. If parents of children under five are as supportive of public school funding as those with children already in the public schools (because they feel they have a future stake in the quality of those schools), then the parents of the under-18 cohort can be taken as an indicator of the size of the group most likely to support public school expenditures. In contrast, those over 65 are assumed least likely to do so. The proportion of those under 18 will be unchanged between 1985 and 1990 and will decline slightly between 1990 and 2000, while the proportion of those over 65 will increase in the 1980s and be stable in the 1990s. These trends suggest some further weakening in the size of the constituency for public school funding in this period. However, a much steeper decline in the size of the college-age group may offset this somewhat. If elementary and secondary schools can marshall political support, they may be the beneficiary of the weakening in the demand for higher education.

Changing Fiscal Patterns

Several recent fiscal developments must also be kept in mind in assessing the prospects for school finance. These include:

- Decline in the relative size of the State-local public sector.
- Greater diversity in revenue sources supporting all State-local functions.
- Reversal of a long-term trend of increased Federal aid to State and local governments and for elementary and secondary education.
- Increases in education expenditures per pupil, but declines in education's share of State-local expenditures.
- Growth in the share of funding of elementary/secondary education by State governments.

o The State-Local Public Sector. After a long period of expansion, State-local direct general expenditures peaked at around 18.3 percent of personal income and about 14.8 percent of Gross National Product in 1975. Since then there has been a steady decline in the relative size of the State-local public sector; State-local general expenditures as a percent of both personal income and GNP were lower in 1981 than they were in 1972. On a per capita basis, State-local expenditures rose throughout the 1970s,

Table II-2

Selected Age Groups of the Population, 1980-2000
(thousands)

Age Group	1980	1985	1990	2000	Percent Change 1985-1990	Percent Change 1990-2000
5-17						
Number	47,399.8	44,880.0	47,259.1	53,026.6	5.3%	12.2%
Percent of Total	20.9%	18.7%	18.8%	19.4%		
Under 5						
Number	16,344.4	19,178.3	19,881.1	18,856.4	3.7%	- 5.2%
Percent of Total	7.2%	8.0%	7.9%	6.9%		
18-24						
Number	30,012.6	29,156.3	25,778.3	25,910.0	-11.6%	- 0.5%
Percent of Total	13.3%	12.1%	10.2%	9.5%		
Over 65						
Number	25,544.1	28,332.7	31,077.3	33,666.6	9.7%	8.3%
Percent of Total	11.3%	11.8%	12.3%	12.3%		
TOTAL	226,504.8	240,050.5	251,848.4	273,650.0	4.9%	8.7%

Sources: U.S. Department of Commerce, 1980 Census of Population,"Age, Sex, Race, and Spanish Origin of the Population by Regions, Divisions and States: 1980," PC 80-S1-1 and unpublished tabulations; George Masnick and John Pitkin, "Cohort Projections of School-Age Populations for States and Regions," prepared for the School Finance Project (1982).

but real expenditures adjusted to reflect inflation have remained relatively constant since 1975. Between 1975 and 1981, real expenditures per capita rose by only about $90, or at an average annual growth rate of less than 1 percent. (See Table II-3.)

The major factor contributing to the decline in State-local expenditures has been a decline in fiscal effort in most States starting in the late 1970s. By 1980, all but a handful of States had levels of effort (own source revenues as a percent of personal income) below those of 1972. The steep declines in effort reflect the impact of some tax and expenditure limitations such as Proposition 13 in California and numerous tax reductions enacted by State legislatures in the late 1970s. The decline in effort has been even greater if only tax revenues are considered.

Effort for education showed a similar decline. In 1972, State-local own source revenues represented 5.1 percent of personal income. By 1980, effort had dropped to 4.1 percent and by 1981 to 4.0 percent of income.

o Declines in Federal Aid. Trends in Federal grants-in-aid have also contributed to the decline in the State-local sector. The 1960s and 1970s witnessed what the Advisory Commission on Intergovernmental Relations (ACIR) called a "quasi-revolution" in American federalism, as Federal grants-in-aid became an important source of growth in State-local revenues. In 1960, Federal aid to States and localities stood at 8 percent of Federal outlays; by 1980, it was 16 percent. In 1960, Federal aid represented 15 percent of State-local revenues; by 1980 it exceeded 25 percent. However, a shift in Federal budget priorities away from the State-local sector began in the late 1970s. From FY 1978 to FY 1981, the annual rate of increase in Federal aid to State and local governments slowed to no more than half the annual rate for the previous ten years. Indeed, when measured by grants as a percentage of total Federal outlays, or as a percent of total Federal outlays for domestic purposes, or as a percent of State-local expenditures, Federal aid peaked in 1978 and has declined in real terms since that time.

Federal aid for elementary/secondary education has, in general, reflected the trends in Federal grants-in-aid to State-local governments. Through the 1970s, Federal aid grew more rapidly than State-local school revenues, rising from 7.5 percent of total revenues in 1972 to 8.9 percent in 1979. Since 1979, however, there has been a steady decline in the Federal share of school revenues (8.2 percent in 1981) and a decline in the real level of Federal aid. With the budget cuts enacted during the 1982 fiscal year and anticipated for the 1983 fiscal year, the Federal share of school revenues is likely to continue to decrease.

o Fiscal Capacity. Sluggish growth in real personal income has also been a factor in the lack of growth in real State-local expenditures in recent years. Real personal

TABLE II-3

State and Local Government Expenditures, 1957-1981

Direct General Expenditures
by State and Local Governments as:

Fiscal Year	Percent of Personal Income[1]	Percent of GNP[1]	Per Capita[2]	Constant Dollars Per Capita[3]
1957[4]	11.6%	9.1%	$ 237	$ 905
1962	13.7	10.7	324	1,080
1967	14.9	11.7	472	1,307
1972	18.0	14.2	809	1,621
1975	18.3	14.8	1,077	1,683
1977	18.0	14.2	1,261	1,730
1979	16.9	13.5	1,481	1,749
1980	17.0	14.0	1,622	1,759
1981	16.8	13.9	1,769	1,769

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[1] Based on calendar year data for personal income and GNP andfiscal year data for expenditures (i.e., 1981 = FY 81÷ CY 81).

[2] Population for year in which fiscal year ends (i.e., 1981 population for FY 81).

[3] Based on State-local government purchases deflator, 1981 = 100.

[4] Excludes Alaska and Hawaii.

SOURCES: U.S. Bureau of the Census, Compendium of Government Finances from Census of Governments for 1957, 1962, 1967, 1972, and 1977 and Governmental Finances for 1974-75, 1978-79, 1979-80, and 1980-81 and Historical Statistics from 1977 Census of Governments; Survey of Current Business, July 1981; Economic Report of the President, February 1982; George Masnick and John Pitkin, "Cohort Projections of School-Age Populations for States and Regions: 1985 to 2000," prepared for the School Finance Project (1982); "U.S. Department of Commerce News," May 9, 1982.

income per capita grew much more slowly in the 1970s than in the previous 15 years and actually declined after 1979, except in some of the energy-producing States. Differences in fiscal capacity among the States have increased recently, due first to developments in the energy-rich States and then to the recession at the end of the decade. Unemployment rates have also increased markedly since 1979, particularly in States highly dependent on depressed industries such as automobiles, steel, and timber.

o Educational Expenditures. Trends in the elementary/secondary school sector have, mirrored the larger trends in total State-local expenditures. State-local expenditures for public schools, after rising to about 4.0 percent of GNP in 1975, have since declined to the levels of the mid 1960s of about 3.4 percent of GNP. Moreover, elementary/secondary education's share of a declining State-local sector has shown a continuous drop during the 1970s. Whereas in 1967 elementary/secondary education represented nearly 30 percent of State-local expenditures, by 1981 that share was down to just under 25 percent, which in part reflects declining public school enrollments and the shift in State-local expenditures to non-educational functions. (See Table II-4.)

On a per pupil basis, current expenditures for elementary/secondary education grew between 1972 and 1981 by about 150 percent -- from $970 to $2,436 per pupil -- but much of that growth was due to inflation. Real expenditures during that period increased only by about 25 percent. Within the last two years, real expenditures per pupil failed to increase in a number of States, and in a few cases, there have been declines in current expenditures per pupil.

Much of the increase in real per pupil expenditures in the 1970s was a function of the decrease in the numbers of public school students; total real expenditures increased by only about four percent. Furthermore, the increase in total real expenditures occurred mainly in the expansionary period of 1975 to 1980. In the periods before (1972 to 1975) and after that (1980 to 1981), the real expenditures per pupil rose more because of enrollment decline than because of real increases in expenditures.

o Increased Reliance on State Revenues. During the 1970s, the State role in financing elementary/secondary education increased significantly. In 1970-71, States contributed about 38 percent of school revenues, with over half (55 percent) coming from local sources, and the remaining 8 percent coming from the Federal Government. By the late 1970s, the State share exceeded the local for the first time, and by 1980-81, the proportions were 47 percent State and 45 percent local. Federal revenues throughout the period remained fairly constant at around 8 percent of the total. (See Table II-5.) Despite the overall trend towards an increased State role, there is nonetheless great variablility among the States in the State and Federal share of resources. The State

TABLE II-4

Expenditures for Education, 1957-1981

Fiscal Year	State-Local Expenditures for Local Schools as: Percent of GNP	Percent of State-Local Direct General Expenditure
1957	2.7%	29.4%
1962	3.1	29.5
1967	3.5	29.6
1972	3.9	27.7
1975	4.0	26.8
1977	3.7	26.2
1979	3.5	25.6
1980	3.5	25.3
1981	3.4	24.8

Sources: U.S. Bureau of the Census, Compendium of Government Finances from Census of Governments for 1957, 1962, 1967, 1972, and 1977 and Governmental Finances for 1974-75, 1978-79, 1979-80, and 1980-81; and Economic Report of the President, February 1982.

TABLE II-5

Financing Elementary and Secondary Education

Revenue Sources

	Federal	State	Local and Other[1]
1972	7.5%	37.6%	54.8%
1975	7.7	41.2	51.1
1977	8.0	41.6	50.4
1979	8.9	44.9	46.2
1980	8.8	46.7	44.5
1981	8.2	47.0	44.8

[1] Includes nonrevenue receipts.

SOURCES: National Education Association, Estimates of School Statistics, annual publication.

share of financing ranged from a high of 87.1 percent in Hawaii to a low of 6.7 percent in New Hampshire in 1980-81.

In a number of States, the proportion of State revenues has fallen in the late 1970s and early 1980s. It is unclear whether this is a temporary phenomenon due to the strain the recession is placing on State budgets, or a longer term development. During economic declines, State revenue shortfalls and increases in expenditures for welfare and unemployment compensation occur, both of which may squeeze the level of State aid for education. In 1982, a number of States have deferred or reduced State aid payments to school districts.

o Greater Diversity in Tax Revenues. As States have assumed a greater role in financing education and other public functions, there have been changes in the reliance on various taxes. The major shift has been the declining role of property taxes, which decreased as a share of State-local tax revenues from 45 percent in 1964 to 31 percent in 1981. Conversely, general sales taxes rose from 15 percent to 23 percent and individual income taxes from 8 percent to 19 percent of total State-local taxes during this same period.

The expansion in State use of general sales and income taxes is evident when 1960 and 1981 are compared. In 1960, most States used only one of these two major broad-based revenue sources; 19 States used both a general sales tax and a personal income tax. In 1981, 37 States levied both a general sales and a broad-based income tax, and only two States, Alaska and New Hampshire, used neither.

This shift in the sources of finance for education is significant because of differences in the responsiveness of the various taxes to changing economic conditions. When the economy is growing, income and sales tax collections respond faster than property taxes and create a revenue boost, primarily for State governments. During economic downturns, however, income and sales tax revenues drop off or fall below revenue forecasts, often prompting mid-year expenditure reductions or tax increases in order to balance State budgets. Property taxes, in contrast, are more stable, expanding gradually during periods of economic growth but declining more slowly during periods of economic decline. This phenomenon has been seen during this current recession as the local share of school revenues, primarily from property taxes, has grown as a revenue source for schools in many States, and the State share has fallen. On the other hand, a heavy reliance on property taxes can contribute to greater intrastate differences in spending.

Other Developments

In addition to the economy, demography and fiscal trends, several other factors influence school spending, including the political and social environment, legal developments and technological changes. These are not incorporated into the assessments of individual State funding prospects for several reasons. Technological developments, for example, are more likely to affect all States and localities uniformly, rather than have a differential impact. Developments in the social, political, and legal domains, in individual States, while clearly important cannot be estimated easily for the future based on past or current trends. A few comments about some of the major developments in these areas are, however, in order, as they are likely to shape the general environment of school finance in future years.

o Political Context. Public attitudes about government in general and education in particular have changed considerably in recent years in ways that may have important consequences for school funding in the 1980s. In the late 1970s, the public demands for lower levels of taxes and public spending took the form of tax and expenditure limits (TELs). However, polls indicate that the public does not want lower levels of public services. Thus, it is not surprising that many of these TELs only attempted to limit future growth in revenues or expenditures and most have had no more than a modest impact. Furthermore, when many States recently raised taxes to avoid or lessen expenditure cuts due to shortfalls in State revenues, there was little public outcry.

Public attitudes toward education and educators are also no longer as supportive as they once were. Factors such as declining test scores, increased costs, controversies over social issues such as desegregation and school prayer, the activities of teacher organizations, feelings of loss of control over local schools, concerns about discipline and curriculum content, and a sense of a decline in standards both for teachers and pupils have all contributed to less confidence in America's public schools. These developments, in combination with decreasing numbers of school-age children, have reduced the public's willingness to support increased school expenditures. Not only do fewer people have a direct stake in the public schools, but there is scepticism that higher expenditures will produce better results.

However, results of the fourteenth annual Gallup poll on education reported in the September, 1982 edition of Phi Delta Kappan indicate that there still is considerable support for schools. Education was most often mentioned as the public service that should receive additional Federal aid. Furthermore, education is considered as extremely important in determining both the nation's future and individual success by at least 80 percent of those interviewed. It remains to be seen whether schools will be able to capitalize on this reservoir of support in the 1980s.

o Social Context. Family structure and household composition changed dramatically during the 1970s. The most important of these are the increasing proportions of both single-parent and two-worker-parent families. These developments reflect several other ongoing trends - - a rising divorce rate, a rising proportion of out of wedlock births, and increased participation by women in the workforce.

There are several possible implications of these developments for elementary/secondary education. First, they might generate new demands for child care services for preschool children and create competition with education for public resources. Secondly, the increased participation of women in the workforce and increased job opportunities have already had a substantial impact on the recruitment of new teachers. Young women who once might have become teachers now see more attractive alternatives in the private sector. In the future, such women may look toward a long-term career with good prospects for advancement rather than a short-term teaching job before raising a family. Third, it could result in an increase in the concentration of children with special educational needs in the public schools.

o Legal Context. Two types of legal developments had a substantial impact on schools and school funding in the 1970s. Court cases in numerous States challenged the constitutionality of State systems for funding public schools; others concerned the education rights of the handicapped and other special need populations. While many of the school funding cases were not successful, enough were, so that they affected not only the particular States in which they were tried, but also acted as a stimulus for change in other States. In States without litigation, the suits either heightened awareness of the issues and/or prompted State action in an attempt to prevent a similar challenge. School finance reforms enacted in the 1970s tended to produce several results: a substantial increase in both the level and proportion of State revenues for education, a decreased reliance on property taxes to finance schools, and a reduction in interdistrict variations in property tax rates for education.

The second type of litigation involved the rights of the handicapped, and to a lesser extent rights of limited English-proficient children, to an education. Court decisions and a number of Federal mandates have greatly expanded access and entitlements to educational services for these groups of children. The mandates in P.L. 94-142, the Education for All Handicapped Children Act, and various court decisions were instrumental in increasing expenditures on special education.

These two areas of litigation are not likely to have the impact on school expenditures in the 1980s that they did in the previous decade. Recent State court decisions on school finance have upheld the status quo, so that the reform impetus has been blunted. In addition, the most recent decisions in handicapped cases have tended to define the rights of the handicapped to services in a less expansive manner than some of the earlier cases. Both developments suggest that the courts may not provide as much of an impetus for increased funding for schools as they did during the last decade.

o Technology. Forecasters have been predicting new technological breakthroughs in the delivery of educational services for many years. In the past this has failed to occur, but there is strong evidence that schools are beginning to make extensive use of micro-computers in their instructional programs. Several issues arise regarding the introduction of the new technology. One concerns the cost of acquiring computers. A recent issue of Time (November 8, 1982) suggests that poor school districts are already falling behind their more affluent counterparts in the acquisition of computer facilities and software. In some cases, poor districts have been able to purchase computer equipment but only at the expense of other needed services. Many of the equity questions that dominated the school finance agenda in States during the 1970s may reemerge in the 1980s as children from different school districts have differential access to computers. A related issue centers on the training of personnel with the qualifications to teach computer-related skills. There is already a serious debate about whether a shortage exists in the number of qualified math and science teachers. As computer technology becomes more widely available to schools, the "shortage" in qualified teachers may be exacerbated. Finally, the ability of schools to attract people with computer-related skills may be constrained by the relatively low salaries in teaching compared with salaries in the private sector. Some have suggested a loan of personnel from the private sector to the schools for short periods to help address the problem. Others have suggested differential pay as a means of attracting qualified people to the schools. All of these developments combined, however, suggest that additional resources may be required if schools are to meet the technological challenges of the coming years.

The Outlook for the 1980s

The 1980s would appear to be an especially challenging period for the finance of elementary and secondary education. Of particular significance is the reversal of the decline in school enrollments that will occur in most States by the late 1980s. With an increase in the number of children of school-age, there is likely to be a renewed demand for additional resources for public schools as well as continued pressure for greater productivity and better educational outcomes. In addition, an increasing proportion of children will come from family backgrounds associated with educational disadvantagement -- poverty, minority, and non-English or limited-English-proficiency. The increased funds required for growing numbers of children will need to be further augmented to provide for more children with special educational needs.

While the demand for elementary/secondary education will be increasing, the decline in the size of the public sector - - and in the level of Federal funding for education - - that occurred in the late 1970s does not seem likely to be reversed. At most, the relative size of public expenditures may stabilize at the current level, but a considerable expansion similar to that of the 1960s and early 1970s is unlikely. That period may have represented an abnormal expansion of the public sector, while the last few years may represent a return to a more normal pattern. (Shannon, 1982)

A smaller public sector may mean several consequences for elementary/secondary school finance. First, real increases in school resources per pupil may be more difficult to achieve than they were earlier. During the late 1970s a slower growth in revenues for education did not place a severe strain on public school funding in part because of declining enrollments. Enrollment increases are, however, projected for the latter part of this decade. Secondly, large increases in non-school-age groups of the population, particularly those over 65, may result in less political support for public schools. Expansion of funding for other public services came about in the 1970s in part as a result of the decline in the proportion of expenditures devoted to schools. It is unclear whether public schools will be able to maintain their current share of total expenditures in the 1980s in the face of more intense competition from other public services, if the size of the public sector remains stable.

To return to a point made earlier in the chapter, the national economy will play an important role in shaping funding prospects for schools in the future. If the economy improves the prospects for financing education in the future would be enhanced significantly. Many forecasts suggest an economic upturn at a time when major school enrollment increases are projected; in that case, available revenues may be sufficient to meet the anticipated demand for school resources. If the economy remains relatively stagnant or declines, school resources will be highly constrained. However, during a time of economic expansion, funding prospects are likely to differ significantly among the States. These differences in State funding prospects are explored at length in Chapter Four.

Chapter 3

FRAMEWORK FOR ASSESSMENT OF STATE FUNDING PROSPECTS

An assessment of the prospects for school finance cannot examine only national trends because States vary widely in critical features. It is necessary to analyze prospects on a State-by-State basis for two reasons: first because that is the level at which the primary responsibility for education rests; and second, because the demographic, political, economic, and fiscal contexts that influence funding choices also vary greatly among the States.

The analysis of prospects examines the relationship between the demand for education and the supply of resources to fund public elementary and secondary schools in each State. Factors that affect the demand or need for school services are ones related to the number of children and their characteristics. Factors related to the availability of funding consist of two types: those affecting funding levels for all public services and those affecting the proportion of funds spent for public schools. For each State the match or mismatch between demand and supply has been assessed.

The primary data sources for the State analysis were the 1970 and 1980 Censuses of Population, the Census of Governments conducted every five years, the annual Census Bureau publication, Governmental Finances, and the National Education Association (NEA) annual report, Estimates of School Statistics.

NEA data were used rather than National Center for Education Statistics for two reasons: comparable data were available over a much longer period of time and NEA figures for later years were available at the time the analysis was undertaken. Another source of data was population projections developed for the School Finance Project by George Masnick and John Pitkin of the MIT/Harvard Joint Center for Urban Studies (Masnick and Pitkin, 1982). The projections are for 1985, 1990, 1995 and 2000 and involve State-by-State estimates of total population and various age cohorts. All discussions of population projections presented in the report use 1985, rather than 1980 as the base year. 1980 could not be used as a base year because population undercounts in that year made the data non-comparable with projection data which were based on adjusted population counts. A discussion of the assumptions and limitations of these projections appears in the Appendix.

Analysis of Demographic and Fiscal Trends

Changes in the demographic and social characteristics of the U.S. population will directly affect the potential demand for elementary and secondary education in the upcoming decade. The analysis has focused primarily on those trends that will affect the size and characteristics of the school-age population. Factors that were considered of past demand were: the number and proportion of persons of school age (5-17); public and private school enrollments; and measures of student need. Four indicators of student need were gathered for each State: (1) children 5-17 in poverty as a percent of total children 5-17; (2) minority students as a percent of public school enrollment;* (3) handicapped children served under the provisions of P.L. 94-142, The Education for All Handicapped Children Act; and (4) the projected number of limited-English-proficient children. An attempt was made to collect data on each of these factors for 1970, 1980 and a year in the middle of the decade. However, comparable data for all the States generally were not available for all three years for any variable other than public school enrollments. For the other variables, data either were not available or were not equivalent for more than two years.

For the assessment of future demand, projections of total and school-age population up to the year 2000 were available from the MIT/Harvard Joint Center for Urban Studies. Since projection data were not available for the other demand variables, it was necessary to identify recent trends for each and assume that similar patterns would continue in the future. Increases in student need and a decline in private school enrollment would indicate an increased demand and higher costs. A decline in need and an increase in private school enrollment would suggest lessened demand and lower public education costs.

Indicators of potential political support for public school expenditures were the proportions of the population of school-age (5-17) and under five. Parents of these two groups were assumed to be particularly supportive of higher spending for schools. The elderly (over 65) were considered the least supportive group. The proportion of students in private schools was also viewed as an indicator of diminished political support for public schools.

Both demographic and fiscal variables were considered in the assessment of competing demand posed by other public services. The number and proportion of the population aged 18-24 were viewed as an indicator of the potential demand for public funding of higher education, and projections were available for this age group up to the end of the century. The relative shares of State-local expenditures devoted to local schools, institutions of higher education, and social services (welfare, health and hospitals) were computed to estimate the extent of competition among these three types of services and with all other public services. Data for these variables were available only through the 1981 fiscal year, and changes in the most recent years were examined for clues as to possible future trends.

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*Data on minority children were from reports prepared by the Office for Civil Rights. In this study, the definition of minorities included children identified as Black, Hispanic, Asian or Pacific Islander, American Indian or Alaska Native.

Factors that were used to examine the supply side of the analysis included measures of fiscal capacity, revenue effort, Federal aid, and expenditure levels, both for all State-local services and for public schools specifically. Per capita personal income is for most States a reliable indicator of a State's ability to support public schools. For a handful of States, this statistic does not capture the additional resource base resulting from oil or minerals. These States include Alaska, Montana, New Mexico, North Dakota, Oklahoma, Texas, West Virginia and Wyoming. Nevada also has an exceptional tax base that results from its revenues from gambling. For such States the ACIR measure of tax capacity is more accurate because it takes these additional resource bases into account. Personal income per capita was the measure of fiscal capacity used throughout the analysis and in the tables, but for the few States where tax capacity was a better measure, the ACIR measure was introduced.* Unemployment rates were also included in the data base as a measure of the susceptibility of State economies to cyclical variations.

Relative levels of fiscal effort to support public services were measured by total State-local (own source or non-Federal) revenues as a proportion of State personal income. A comparison of total effort versus that for schools alone is a way of examining how well education fares relative to other services in a given State. Measuring effort against personal income may produce a misleading picture in those States where income understates revenue-raising capability and in those cases, effort relative to the ACIR tax capacity measure was also examined.

The amount of Federal aid and the share of revenues coming from Federal sources were examined to determine a State's reliance on Federal aid. Two effects were possible. First, the greater a State's reliance on Federal aid, then the greater the consequences of cutbacks in such funds and the potential pressure to replace Federal funds with State or local funds. These substitutions could impact on funds available for public schools. Secondly, cutbacks in Federal education aid could create funding problems for public education by forcing greater competition with other services for State and local funds and possibly producing declines in aggregate revenues for schools.

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* A State's classification on fiscal capacity was modified where its relative ranking on the ACIR measure was 10 or more points above its ranking on personal income per capita.

Assessment of Prospects

States were grouped on the basis of expectations about future per pupil expenditures into those where expenditures were likely to be relatively high (10 percent or more above the national average), moderate (91 to 109 percent of average) and below average (90 percent or less of average).* The use of per pupil expenditures as a basis for assessing future funding prospects in the States has its limitations. Expenditures may not reflect differences in the level of educational services in States but rather differences in the cost of providing education. No satisfactory adjustments for local cost differences exist. In this analysis, the impact of cost differences among the States was examined in several ways. One was to compare State expenditures per pupil and per capita personal incomes, both indexed to the national average. States with below average spending which also rank lower in school spending than they do in income probably are providing below average levels of services. Conversely, in high-spending States whose relative spending exceeds relative income, the high spending is probably not only a reflection of higher costs but also suggests a higher level of educational services.

The comparison of States on indices of per capita income in 1981 and school expenditures for 1980-81 reveals that 24 States had differences in the two indices of ten percentage points or more with 13 States spending much more for schooling and 11 spending well below their income index. Moreover, all of the former States were among the 20 highest expenditure States, while all but one of the latter were among the lowest spending States. This suggests that spending differences among high- and low-expenditure States do reflect real differences in educational services as well as differences in school costs. Such a conclusion is further reinforced when average teacher and instructional salaries and estimates of cost-of-living differences are analyzed. While some of the differences in expenditures among States seem to reflect cost differences, most States classified as low-spending in this analysis (10 percent or more below the national average) would still have below-average expenditures even after cost differentials were taken into account.

Only three broad categories were used in classifying States according to prospective spending levels. The range in the average category is rather wide (from nine percent above to nine percent below the national average) to allow for cost differentials and special circumstances (such as sparsity and small schools) which may contribute to differences in expenditure levels but may not result in comparable differences in the services provided. The other two categories are open-ended and reflect the broad range in school expenditures that exists at the upper and lower ends of the spectrum. Making assessments about future spending is difficult, particularly for more than a few years into the future, given the number of factors involved and the uncertainty surrounding each factor. As the number of spending categories used increases, so do the chances of misclassifying States. Furthermore, the purposes for which State assessments are needed can be met by using only three categories. The primary reason for the assessments is to identify those States that are most likely to encounter funding difficulties which will result in low levels of educational services for students. A secondary objective is to identify those States that are apt to provide high levels of services. These two groups of States are the ones identified in the high and below average expenditure categories.

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* Expenditures per pupil are calculated based on Average Daily Attendance as this is the only pupil measure for which there are comparable data across States over time.

While the prospects were assessed based on expectations about levels of expenditures, an alternative criterion could have been the ability of States to maintain their existing levels of expenditures. This would have resulted in the reclassification of a number of States. This approach was rejected because projected changes in expenditure levels were considered less important than the projected absolute level. As a result, each of the three categories not only contains States that will vary considerably in their future expenditure levels but also ones that will differ in the direction in which their expenditures are moving. The high category includes States whose expenditures may rise from their current levels as well as those which will not be able to maintain their present relative level of expenditures but will still be high compared to the country as a whole. These latter States might be perceived as not having good funding prospects, but compared to other States they will still be in a very favorable position. Similarly, some States in the low category may increase expenditures a great deal but still have expenditures that are well below the national average. As a result, they are assessed as having unfavorable prospects.

Study Limitations

Certain limitations of the data on which the analysis of the prospects for funding are based should be noted. One is the difference in years for which demographic and other types of data were available. Projections were only developed for total population and various age cohorts. Therefore, estimates of future trends in all other variables had to be based on analyses of past trends and assumptions on the likelihood of the continuation of those trends. To the extent that the assumptions about any State built into the Joint Center population projections or those by analysts at the School Finance Project about the other variables prove to be inaccurate, then the assessments of prospects for financing will also be in error. Assumptions concerning demographic projections placed more emphasis on long-term trends rather than short-term ones of the last year or two. This was also true with respect to the analysis of economic prospects, where it was assumed that the current economic downturn represents primarily a cyclical phenomenon that will be reversed later in the decade. However, some States may be undergoing structural changes and the economic prognosis in those States is uncertain.

Because of the lack of projections for the fiscal variables, greater emphasis was placed on recent changes in those variables. Rather than using data for 1970, 1975(76), and 1980, the analysis primarily examined data for 1972, 1975, 1977, 1980, and 1981, and to a lesser extent data for every five years between 1957 to 1972. The choice of 1972 rather than 1970 was made to highlight behavior in the last period of recession between 1972 and 1975. Furthermore, 1972 marked the peak in enrollments in the United States, so that the period since 1972 is a time of declining enrollments.

A final limitation to the examination of prospects that should be noted is the lack of attention to intrastate variations in school spending. These are now considerable (and their extent differs greatly among States) and there is no reason to expect them to decline dramatically in the coming decade. School finance reform efforts of the 1970s appear to have done little to reduce the disparities, although those efforts may have prevented them from becoming greater. Unfortunately, the data do not exist to permit an investigation of interdistrict variations in spending and prospective changes. Instead, the finances of a limited number of urban school districts were examined, and their circumstances were compared to their own statewide averages. The prospects for school finance in large city school districts are contained in a supplement to this report.

Chapter 4

SCHOOL FUNDING PROSPECTS FOR THE STATES

This chapter reviews the prospects for funding in each of the 50 States. It begins with a discussion of variations in critical demographic and fiscal features that were utilized in the assessments of each State. Factors affecting the demand for schooling are discussed first, and then those related to the supply of funds.

The Demand for Schooling

One of the most important factors influencing prospects for financing schools is the size of the population that will have to be educated. Also important is the composition of the student body, i.e., the characteristics of children that influence the educational services they will need. Together, the number of students and their characteristics comprise the demand for education. Rates of change in the size of school-age population projected for States over the next decade-and-a-half are examined in this chapter, along with recent trends in special needs populations such as poor children, the handicapped, and the limited-English proficient. This analysis will assess the impact of these changes on the future demand for public elementary/secondary education.

Projected Changes in School-Age Population

In contrast with the 1970s when most States experienced declines in elementary/secondary school enrollments, the late 1980s will be a period when the decline will be reversed in most States. Within the nation, however, continued decline in school-age population in some regions and States will be counterbalanced by large projected increases in others. Table IV-1 reveals the magnitude of projected State changes. (See Appendix Table B-1 for projected number of children age 5-17 to 2000.)

Many of the States that are anticipated to have the largest increases (over 35 percent) in school-age populations between 1985 and 2000 - - and consequently the largest increases in the demand for schooling - - are located in the Rocky Mountain and Southwest regions. Other States with very large projected increases include North and South Dakota, Hawaii, Mississippi, Nevada, New Hampshire, and Oregon. Other projected high-growth States (25-34.9 percent) are found in several regions while more modest growth (15-24.9 percent) is forecast primarily for States in the South Atlantic region and the eastern Plains. Stable populations (0-4.9 percent growth) or continued decline is anticipated for most States in southern New England, the Mideast and the Great Lakes. (See Map IV-1.)

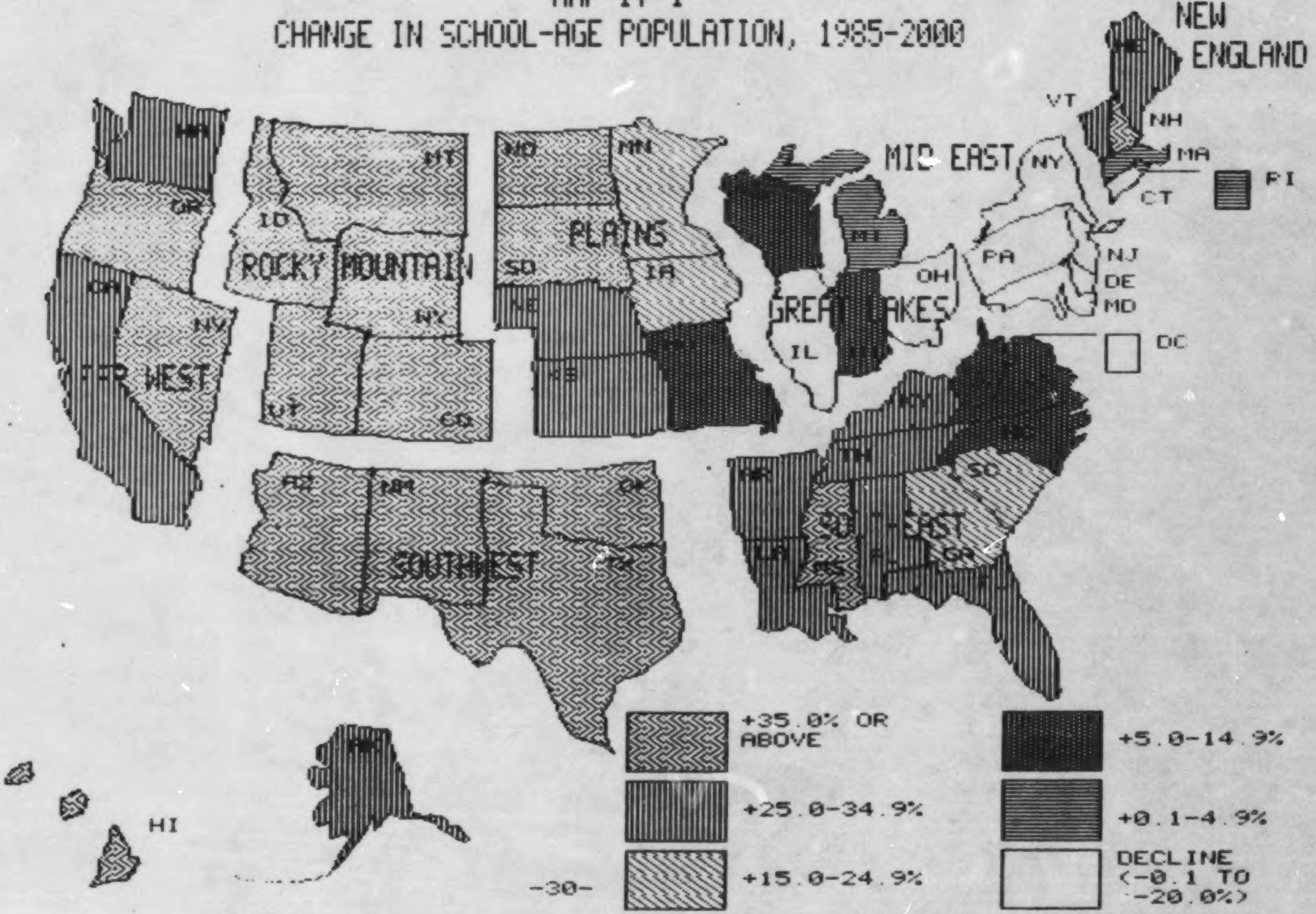
TABLE IV-1

Changes in School-Age Population, 1985-2000

State and Region	Percent Change 1985-1990	Percent Change 1990-2000	Percent Change 1985-2000
United States	+5.3	+12.2	+18.2
New England			
Connecticut	-6.7	+0.3	-6.4
Maine	+5.9	+21.2	+28.2
Massachusetts	-4.0	+6.4	+2.1
New Hampshire	+10.4	+33.6	+47.5
Rhode Island	-2.2	+7.3	+4.9
Vermont	+7.6	+21.1	+30.4
Mideast			
Delaware	-1.5	-3.5	-4.9
District of Columbia	-17.4	-23.1	-36.5
Maryland	-2.2	-1.3	-3.5
New Jersey	-6.9	-6.4	-12.8
New York	-7.6	-8.9	-15.9
Pennsylvania	-4.2	-3.8	-7.8
Great Lakes			
Illinois	-0.8	-5.9	-6.6
Indiana	+3.1	+2.0	+5.2
Michigan	0	+1.4	+1.4
Ohio	-2.0	-3.4	-5.3
Wisconsin	+5.6	+6.6	+12.5
Plains			
Iowa	+7.8	+7.2	+15.6
Kansas	+12.9	+13.6	+28.1
Minnesota	+7.2	+11.1	+19.1
Missouri	+6.3	+5.1	+11.7
Nebraska	+12.2	+19.6	+34.2
North Dakota	+15.3	+20.1	+38.5
South Dakota	+17.4	+20.0	+40.9
Southeast			
Alabama	+7.6	+18.7	+27.7
Arkansas	+10.7	+16.9	+29.5
Florida	+9.1	+18.0	+28.7
Georgia	+3.2	+13.7	+17.3
Kentucky	+9.6	+22.5	+34.2
Louisiana	+12.6	+19.5	+34.6
Mississippi	+23.8	+27.4	+57.8
North Carolina	+.8	+10.8	+11.7
South Carolina	+4.6	+13.9	+19.1
Tennessee	+7.0	+20.2	+28.6
Virginia	+1.1	+10.4	+11.7
West Virginia	+2.0	+3.3	+5.4
Southwest			
Arizona	+15.8	+35.2	+56.6
New Mexico	+16.8	+25.8	+46.9
Oklahoma	+14.1	+20.3	+37.3
Texas	+13.3	+28.2	+45.5
Rocky Mountain			
Colorado	+12.3	+30.0	+45.9
Idaho	+21.0	+30.5	+57.9
Montana	+14.9	+19.3	+37.1
Utah	+31.4	+39.4	+83.1
Wyoming	+29.9	+47.1	+91.0
Far West			
California	+10.7	+19.6	+32.4
Nevada	+15.8	+38.6	+60.5
Oregon	+18.1	+32.2	+56.2
Washington	+7.0	+18.1	+26.4
Alaska	+8.8	+17.3	+27.6
Hawaii	+12.4	+25.4	+40.9

Source: George Masnick and John Pitkin, "Cohort of School-Age Populations for States and Regions," prepared for the School Finance Project (1982).

MAP IV-1
CHANGE IN SCHOOL-AGE POPULATION, 1985-2000


NEW ENGLAND
VT
NH
MA
CT
RI
MID EAST
NY
PA
NJ
DE
MD
DC
WA
OR
CA
NV
FAR WEST
ID
MT
WY
UT
CO
ROCKY MOUNTAIN
ND
MN
SD
PLAINS
IA
NE
KS
GREAT LAKES
MI
OH
IL
KY
TN
AR
SC
SOUTHEAST
LA
MS
GA
AZ
NM
OK
TX
SOUTHWEST
AK
HI
▨ +35.0% OR ABOVE
▨ +25.0-34.9%
▨ +15.0-24.9%
■ +5.0-14.9%
▤ +0.1-4.9%
☐ DECLINE (-0.1 TO -20.0%)

Over 40 States are projected to show an upturn in school-age populations between 1985 and 2000, but the timing of this increase will differ among States. Some will not experience much growth until the 1990s, specifically States in the eastern Plains, the Southeast, northern New England, and the Northwest. On the other hand, States that are projected to show high growth in school-age population during the entire period generally will experience such growth beginning in the late 1980s.

States have been classified according to their projected demand for elementary/secondary education for the period 1985-2000 in our assessment of funding prospects. In our final discussion, States with growth rates over 25 percent are considered high-growth States; those with under 25 percent increases or declines as low-growth States.

Student Need

Projections of the characteristics of public school students were not available for our assessment of funding prospects. For analytical purposes, the most recent trends or levels were assumed to continue. An analysis of the States based on the most recent counts of special needs students was undertaken.

Poverty. The proportion (but not the number) of school-age children in poverty rose slightly for the nation during the 1970s. This increase was evident in about half the States, but in several States in the Northeast, the Great Lakes, and Far West regions, the number of poor children actually increased. In Connecticut, Massachusetts, New Jersey, New York, Illinois, and Michigan, the trend was most pronounced. All had declines in the school-age population (and public school enrollments) in excess of 10 percent, and increases in the number of children in poverty of 15 percent or more. Most of the States with rising proportions of poor children still had no more than moderate proportions of such children in 1980, because of the low incidence of such children in 1970. (See Table IV-2.)

At the other end of the spectrum, the most dramatic declines in both the number and proportion of children in poverty occurred in States in the Southeast and Southwest. In most of these States, the number of poor children declined more rapidly than school-age population, but in a few States, including Arizona, Florida, and Texas, school-age population increased while there were fewer poor children. Despite the decline, however, most States in these regions continued to have the highest concentrations of children in poverty.

In some respects the 1980s may continue to reflect the developments of the past decade. Some of the States in the Northeast and the Great Lakes regions may experience a relative growth in poor children due to outmigration of higher income residents, higher fertility rates among low income populations, and immigration. States

TABLE IV-2

School-Age Children in Poverty, 1970-1980

State and Region	Percent Children 5-17 in Poverty 1970	1980	Percent Change School Age Population, 1970-1980	Percent Change Children 5-17 in Poverty, 1970-1980
United States	14.8	15.2	-9.7	-6.5
New England				
Connecticut	7.2	11.0	-13.0	+27.5
Maine	14.2	14.5	-6.3	-1.9
Massachusetts	8.4	12.7	-18.0	+25.3
New Hampshire	7.7	8.3	+3.6	+16.4
Rhode Island	11.0	12.7	-16.9	-1.7
Vermont	11.4	11.8	-6.7	-0.8
Mideast				
Delaware	12.0	13.9	-15.5	+2.9
District of Columbia	23.2	25.4	-33.8	-25.1
Maryland	11.5	11.6	-13.7	-11.0
New Jersey	8.7	13.4	-15.0	+31.5
New York	12.2	18.1	-18.4	+22.4
Pennsylvania	10.6	13.6	-18.7	+6.1
Great Lakes				
Illinois	10.7	14.6	-16.1	+15.7
Indiana	9.0	10.9	-13.4	+6.3
Michigan	9.1	12.8	-15.5	+19.8
Ohio	9.8	12.6	-18.1	+6.3
Wisconsin	8.7	10.0	-15.9	-2.6
Plains				
Iowa	9.8	8.9	-18.5	-25.6
Kansas	11.5	9.8	-18.1	-29.2
Minnesota	9.5	9.5	-17.6	-17.0
Missouri	14.8	14.2	-14.7	-17.1
Nebraska	12.0	10.7	-16.3	-24.3
North Dakota	15.7	14.2	-22.1	-28.1
South Dakota	18.3	18.5	-21.2	-20.0
Southeast				
Alabama	29.5	21.5	-7.2	-31.5
Arkansas	31.6	22.2	-0.2	-29.1
Florida	18.9	16.7	+11.2	-0.7
Georgia	24.4	20.3	+0.7	-14.8
Kentucky	25.1	22.3	-5.1	-14.1
Louisiana	30.1	23.8	-6.8	-25.5
Mississippi	41.5	31.3	-5.6	-28.5
North Carolina	24.0	17.4	-5.3	-30.7
South Carolina	29.1	19.3	-2.3	-34.4
Tennessee	24.8	21.3	-2.9	-15.4
Virginia	18.2	13.4	-7.0	-30.1
West Virginia	24.3	17.3	-6.3	-32.5
Southwest				
Arizona	17.5	14.2	+19.1	-2.5
New Mexico	26.3	21.2	-2.4	-21.1
Oklahoma	19.5	14.4	-2.8	-27.0
Texas	21.5	18.4	+4.6	-9.2
Rocky Mountain				
Colorado	12.3	11.0	+0.7	-8.2
Idaho	12.0	13.3	+6.9	+17.9
Montana	12.9	12.7	-14.6	-14.8
Utah	10.0	9.7	+12.2	+9.0
Wyoming	11.2	6.8	+10.1	-31.0
Far West				
California	12.1	13.8	-6.3	+8.7
Nevada	8.8	9.3	+26.2	+35.5
Oregon	10.3	10.6	-1.6	+3.5
Washington	9.3	10.8	-5.3	+12.6
Alaska	14.6	9.6	+4.2	-26.7
Hawaii	9.7	11.0	-2.9	+15.3

Source: U.S. Department of Commerce, Statistical Abstract of the United States, 1980; 1980 Census of Population and Housing, Provisional Estimates of Social, Economic and Housing Characteristics, States and Selected Metropolitan Statistical Areas, PHC 80-S1-1; and 1970 Census of Population, Volume 1, Characteristics of Population.

in other regions outside the Sunbelt will probably continue to have average or low percentages of poor children. In the Southeast and Southwest, however, it is unclear whether absolute or relative declines will continue. With an upturn in school-age population and higher average fertility rates for low-income women, the number of poor children in these States may stabilize or even increase. However, the proportion of such children could continue to fall if population growth exceeds the national average. Nevertheless, many of these States may still be among those with the highest concentrations of poor children.

Minorities. Throughout the 1970s the proportion and number of minority children enrolled in the public schools showed a steady increase. More than 80 percent of the States (41) showed an increase in the proportion of minorities during this period, and these tended to be States that already had average to high proportions of minority children. (See Table IV-3.) With the exception of Alaska, Missouri, Connecticut, and Colorado, these States were located in five regions: the Mideast, the Great Lakes, the Southeast, the Southwest and the Far West. The nine States which experienced declines in the proportion of minorities were found in several regions of the country, although there was a concentration of States from the Southeast (Alabama, Arkansas, Georgia, South Carolina, and West Virginia). Fewer States (24) had increases in the number of minority students. Most of these were west of the Mississippi. (See Map IV-2.)

Should these trends continue, the minority composition of public school enrollments might take the following shape in the future. States in the Northeast and Great Lakes would continue to have increasing concentrations of minority enrollments (particularly in large cities) as a result of either less rapid decline in minority than non-minority enrollments or continued decline in non-minority enrollments and absolute increases in the minority school population. In the States of the Southeast, Southwest, and Far West, where the school-age cohort is projected to grow starting in the late 1980s, the proportion of minority children in public schools may also increase, if minority populations continue to increase more rapidly than non-minority groups.

Handicapped Children. States vary much less in the proportion of handicapped children served under P.L. 94-142 (The Education of All Handicapped Children Act) than on other measures of educational need such as poverty and limited proficiency in English. In the 1979-80 school year, the proportion of children receiving services ranged from a high of 12.4 percent in Massachusetts to a low of 5.3 percent in New Hampshire. Since the incidence of handicapped children is probably relatively uniform across States, this variation may be more a reflection of State and local policy choices about student classification and service delivery than a reflection of State differences in educational need. Services for the handicapped are, however, generally much more costly than services for the average student or for children in other special need classifications.

TABLE IV-3

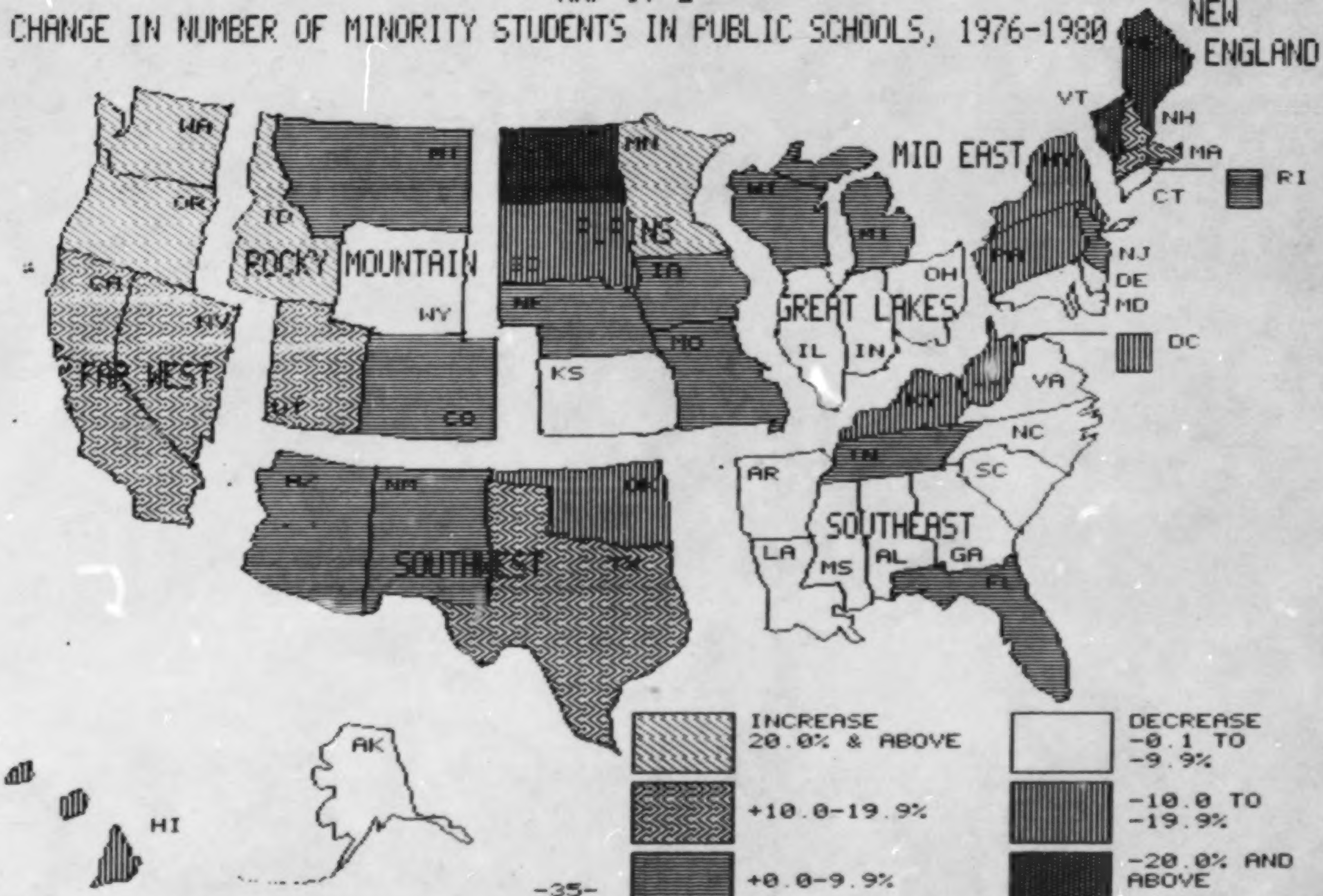
Minority Enrollments, 1976-1980

State and Region	Percent Minority Public School Enrollment		Percent Change in:	
	Fall 1976	Fall 1980	Public School Enrollment, Fall 1976-1980	Minority Enrollment, Fall 1976-1980
United States	24.0	26.7	-7.6	+1.6
New England				
Connecticut	15.4	17.0	-16.2	-4.6
Maine	0.9	0.9	-10.6	-35.7
Massachusetts	7.7	10.7	-12.6	+19.7
New Hampshire	1.1	1.3	-4.1	+16.7
Rhode Island	6.5	8.2	-14.0	+7.4
Vermont	.8	1.0	-8.2	-22.2
Mideast				
Delaware	24.3	28.8	-18.7	-6.4
District of Columbia	96.5	96.4	-20.5	-16.2
Maryland	30.2	33.5	-12.8	-2.7
New Jersey	24.5	28.4	-12.7	+0.9
New York	29.7	32.0	-15.0	-10.7
Pennsylvania	14.4	14.9	-13.0	-10.3
Great Lakes				
Illinois	25.4	28.6	-11.4	-1.8
Indiana	11.4	12.0	-9.3	-5.9
Michigan	18.3	21.3	-8.5	+2.1
Ohio	14.0	14.7	-13.0	-8.2
Wisconsin	8.0	9.3	-12.2	+1.3
Plains				
Iowa	3.2	4.1	-11.8	+9.4
Kansas	10.7	12.7	-4.9	-3.5
Minnesota	4.1	5.9	-12.6	+35.6
Missouri	12.8	14.8	-11.1	+6.0
Nebraska	7.5	10.5	-10.1	+9.1
North Dakota	6.2	3.5	-12.2	-59.0
South Dakota	7.8	7.9	-13.2	-18.4
Southeast				
Alabama	34.2	33.6	+0.8	-2.1
Arkansas	23.2	23.5	-2.8	-8.6
Florida	29.9	32.2	-1.8	+4.2
Georgia	35.2	34.3	-0.6	-2.2
Kentucky	10.1	9.1	-3.5	-10.6
Louisiana	41.9	43.4	-7.3	-3.1
Mississippi	49.0	51.6	-6.5	-5.4
North Carolina	31.4	31.9	-5.2	-3.9
South Carolina	41.8	43.5	-0.2	-0.4
Tennessee	21.9	24.5	+1.4	+8.8
Virginia	25.7	27.5	-8.2	-1.8
West Virginia	4.5	4.3	-5.3	-10.4
Southwest				
Arizona	31.4	33.7	+2.2	+4.9
New Mexico	53.5	57.0	-4.7	+3.5
Oklahoma	22.0	20.8	-3.3	-16.6
Texas	40.8	45.9	+2.7	+13.3
Rocky Mountain				
Colorado	20.3	22.1	-4.2	+6.9
Idaho	5.7	8.2	+1.6	+54.0
Montana	9.0	12.1	-9.0	+7.5
Utah	6.7	7.3	+9.2	+19.5
Wyoming	8.7	7.5	+8.5	-3.8
Far West				
California	34.9	42.9	-6.0	+12.5
Nevada	17.0	18.9	+5.4	+17.6
Oregon	6.5	8.5	-2.1	+28.9
Washington	10.1	14.1	-3.0	+36.6
Alaska	25.8	28.4	-5.2	-1.3
Hawaii	79.5	75.2	-5.6	-11.7

Source: National Center for Education Statistics, Digest of Education Statistics 1980, Condition of Education 1980 Edition, and unpublished tabulations, and U.S. Department of Education, Office of Civil Rights, unpublished tabulations.

MAP IV-2

CHANGE IN NUMBER OF MINORITY STUDENTS IN PUBLIC SCHOOLS, 1976-1980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ID
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UT
CO
ROCKY MOUNTAIN
MN
SD
NE
KS
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MO
PLAINS
WI
MI
OH
IL
IN
GREAT LAKES
AZ
NM
OK
TX
SOUTHWEST
KY
VA
NC
TN
SC
AR
LA
MS
AL
GA
FL
SOUTHEAST
AK
HI
INCREASE 20.0% & ABOVE
+10.0-19.9%
+0.0-9.9%
DECREASE -0.1 TO -9.9%
-10.0 TO -19.9%
-20.0% AND ABOVE

Limited English-Proficiency. The incidence of children with limited proficiency in English, in contrast, differs markedly across States. A handful of States -- New Mexico, Texas, Arizona, New York, California, and Hawaii -- had concentrations of such children exceeding 10 percent in the 1980-81 school year, and another seven States -- Alaska, New Jersey, Colorado, Florida, Connecticut, Louisiana, and Rhode Island -- had between 4 and 10 percent of public school enrollments classified as limited-English-proficient. All other States except for eight in the Southeast (where no limited-English counts were reported) had less than 3 percent of their enrollments in this category, although even within these States there may be some school districts with high concentrations of children with limited facility in the English language.

Educational Need: A Composite Picture

Based on the most recent counts of children in poverty, handicapped children served under P.L. 94-142, and children with limited proficiency in English, an index of overall educational need was developed for each of the 50 States. (See Appendix for the methodology used in constructing the index.) For poverty children, this index reflects the direction of change as well as current levels. (Table IV-4 presents State rankings on the need variables and the composite classification for each State.)

As the table suggests, there are some regional patterns in the incidence of educational need in the States. Those with the highest need are generally located in the Southeast, but include States outside that region, namely, New York, New Jersey, New Mexico, South Dakota and Texas. States with moderate educational need are found in all regions of the country, but tend to be concentrated in New England and the Great Lakes. The lowest incidence of children with high educational needs is found in three regions: the Far West, the Plains, and the Rocky Mountains, and in a scattering of other States in the Northeast.

Private School Enrollment

The future demand for public elementary/secondary education is likely to be affected by parental choices between public and private schools. Recent trends in private school enrollments may not be a good barometer to judge the direction of future changes, in part because these changes occurred during a period of general enrollment decline. However, because projections of private school choice are currently unavailable, a review of the most recent developments may provide some hint about possible futures.

In the 1970s, a decline in private school enrollments of about 11.4 percent occurred throughout the nation. With public school enrollments declining a little less rapidly, the private school share declined from 11.2 percent to 10.7 percent of total enrollments.

Table IV-4

Incidence of Special Student Need Populations

State and Region	Percent Children 5-17 in Poverty 1980	Percent Handicapped Children in Public School Enrollment Fall 1979	Percent Estimated Limited English Speaking in Public School Enrollment 1980	Cumulative Index
United States				
New England				
Connecticut	L	H	M	M
Maine	M	H	L	M
Massachusetts	M	H	L	M
New Hampshire	L	L	L	L
Rhode Island	M	M	M	M
Vermont	L	H	L	L
Mideast				
Delaware	M	H	L	M
District of Columbia	H	L	L	H
Maryland	L	H	L	L
New Jersey	M	H	M	H
New York	H	L	H	H
Pennsylvania	M	M	L	M
Great Lakes				
Illinois	M	H	L	M
Indiana	L	M	L	L
Michigan	M	L	L	M
Ohio	M	M	L	M
Wisconsin	L	L	L	L
Plains				
Iowa	L	H	L	L
Kansas	L	M	L	L
Minnesota	L	H	L	L
Missouri	M	H	L	M
Nebraska	L	H	L	L
North Dakota	M	L	L	M
South Dakota	H	L	L	H
Southeast				
Alabama	H	M	-	H
Arkansas	H	M	-	H
Florida	H	M	M	H
Georgia	H	M	L	H
Kentucky	H	M	-	H
Louisiana	H	M	M	H
Mississippi	H	M	-	H
North Carolina	H	M	-	H
South Carolina	H	H	-	H
Tennessee	H	H	-	H
Virginia	M	M	L	M
West Virginia	H	M	-	H
Southwest				
Arizona	M	H	H	M
New Mexico	H	L	H	H
Oklahoma	M	H	L	M
Texas	H	M	H	H
Rocky Mountain				
Colorado	L	L	M	L
Idaho	M	M	L	M
Montana	M	L	L	M
Utah	L	H	L	L
Wyoming	L	M	L	L
Far West				
California	M	M	H	M
Nevada	L	L	L	L
Oregon	L	M	L	L
Washington	L	L	L	L
Alaska	L	M	M	L
Hawaii	L	L	H	L

H = High L = Low
M = Moderate - Not Available
Source: Derived from Table C-2 in the Appendix.

Much of this decline was in Catholic school enrollment, which dropped sharply during the early part of the decade. Between 1970 and 1980, the Catholic share of private school enrollments dropped from 80.8 percent to 62.1 percent (NCEA, 1982).

Nearly two-thirds of the States experienced declines in private school enrollments during the 1970s but in a number of States in the Northeast and Midwest, the decline was precipitous. According to Census counts, States such as Massachusetts, Michigan, New Hampshire, Rhode Island, Vermont and New York had decreases in excess of 25 percent. In contrast, most States in the Southeast, California and Delaware experienced increases in private school enrollments at the same time that public school enrollments declined. In a few of these States, particularly Alabama, Mississippi, and Delaware, the private school share of total enrollments increased dramatically over the decade.

For the latter half of the 1970s, there is some evidence that the decline in private school enrollments may have ended and that enrollments are now on the upturn (Cooper and McLaughlin, 1982). In Catholic schools, the rate of decline is much less than it was in the early 1970s (NCEA, 1982), while non-Catholic schools appear to be growing. Because of undercounting of private school children in surveys conducted both by Census and the National Center for Educational Statistics (NCES), it is difficult to get a firm estimate of non-Catholic, private school enrollments and to gauge trends in individual States.

In terms of absolute numbers, the one State where the increase is particularly significant is California. In the 1976-80 period, public school enrollments decreased by 262,000 (6.0 percent), while private school enrollments increased by 46,000 (9.7 percent). (NCES, 1982) Thus about 17 percent of the decline in public school enrollment was accounted for by an increase in private school enrollments. Within the private school sector in California there has also been a shift from Catholic to other religiously affiliated and non-affiliated schools. The share of non-public school enrollments composed of Catholics dropped from 70 percent in 1970-71 to 55 percent at mid-decade to 51 percent in 1980-81. Both non-affliated and other religiously-affliated schools showed corresponding increases during the period.

The Supply of Resources for Education

The provision of financial resources for elementary/secondary education by State and local governments must be considered within the larger context of State-local public finance. To the extent that education "competes" with other public services for funds, one must take into account the size of the fiscal pie that all public services must share. Where the State-local sector is large, a small share for elementary/secondary education may not mean that the function is faring poorly. Conversely, a large share for schools of a small State-local sector may not mean high expenditure levels for education. In addition to the size of the sector, the direction of change in its size has important consequences for education finance. Where the sector is growing, the degree of competition for resources will be less intense than where the sector is shrinking. Elementary/secondary education may well hold its own when public revenues are growing, even though its share of State-local expenditures remains constant or shows modest declines. With a declining State-local sector, however, additional resources for other functions may result in real resource declines for education. It is therefore, important to examine changes in the overall size of the State-local public sector State-by-State to assess the potential supply of resources for elementary/secondary education.

State-Local Expenditures

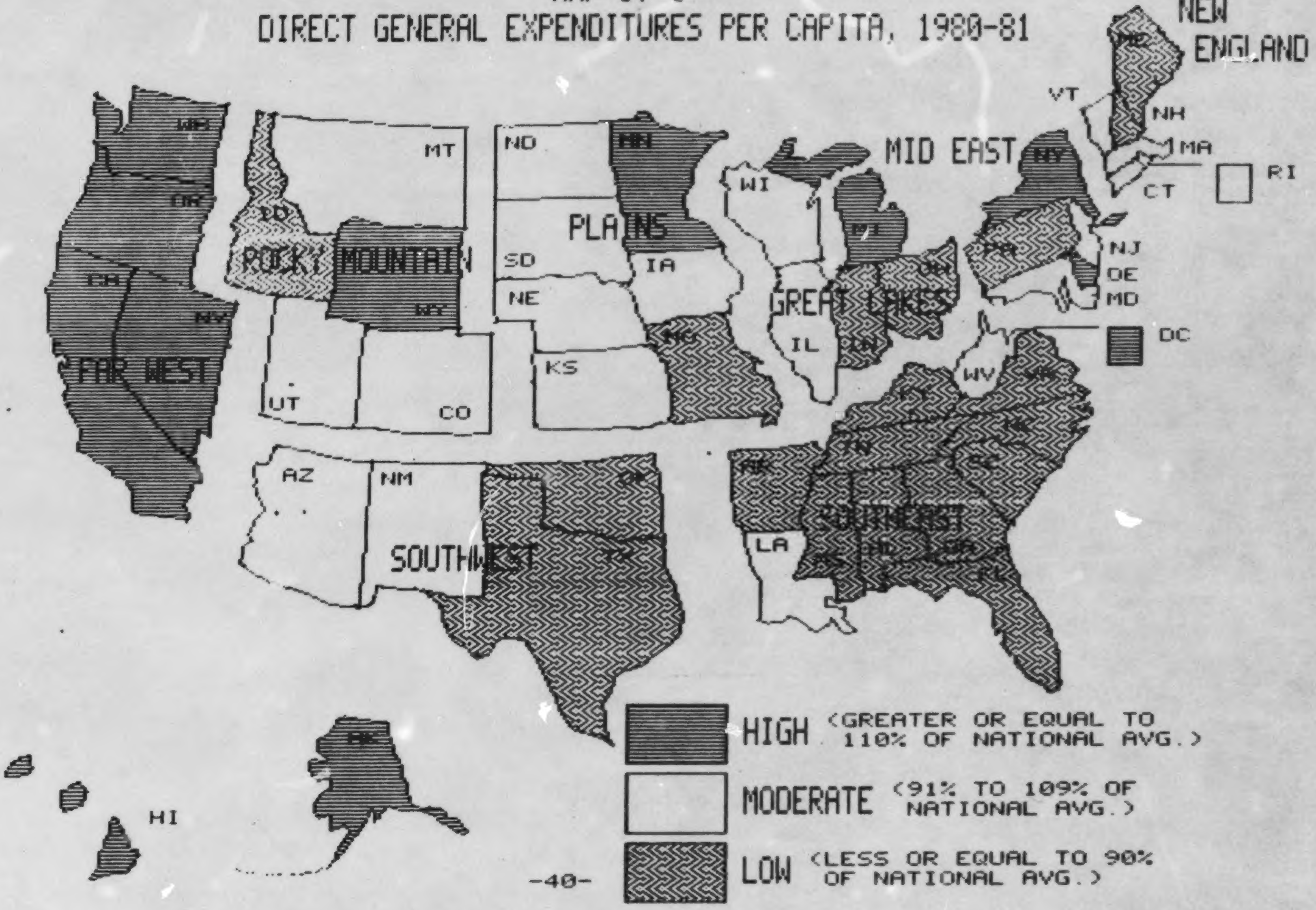
The size of the State-local public sector differs markedly among the 50 States. States in the Southeast have traditionally been well below the national average in their level of State-local expenditures per capita. (In FY 1981, the expenditure levels in all but two of the twelve States in the region were more than 10 percent below the national average.) States in the Far West, in contrast, have consistently been at the high end of the spending spectrum. Other regions of the country generally include States with both high and low levels of public spending. These spending patterns, however, do not reflect differences in the cost of providing public services. State standings might be altered somewhat if cost differences were taken into account. (See Map IV-3.)

Throughout the 1970s there was a general tendency for the variation in State-local spending among States to decrease. (See Table IV-5.) This resulted from both relatively lower spending increases among high-spending States and more rapid growth in spending among low-spending States. In the last year of the decade, however, this trend towards convergence in spending levels appears to have reversed itself, as high-spending States such as Alaska, Wyoming and Delaware increased their expenditures at rates well above average and low-spending States in the Southeast, as well as Maine and Idaho increased expenditures more slowly than the national average. It is uncertain whether the reversal is a temporary by-product of the current national recession or whether it marks the beginning of a longer term trend for the 1980s. It is clear, however, that most low spending Sunbelt States are only a little closer to the average spending level than they were a decade ago.

Educational Expenditures

The level of State-local expenditures for elementary/secondary education generally

MAP IV-3
DIRECT GENERAL EXPENDITURES PER CAPITA, 1980-81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HIGH (GREATER OR EQUAL TO 110% OF NATIONAL AVG.)
MODERATE (91% TO 109% OF NATIONAL AVG.)
LOW (LESS OR EQUAL TO 90% OF NATIONAL AVG.)

TABLE IV-5

Measures of Interstate Diversity in State-Local Expenditures Per Capita 1957-1981

State-Local Direct General Expenditures Per Capita[1]

	Range	Ratio of Highest/Lowest	Coefficient of Variation
1957[2]	$ 218	2.43	21.0(21.3)
1962	352(289)	2.74(2.43)	21.5(19.2)
1967	885(434)	3.89(2.42)	28.1(19.9)
1972	1697(730)	4.25(2.40)	32.5(18.3)
1975	2054(884)	3.82(2.21)	29.9(16.6)
1977	2353(868)	3.68(1.99)	29.0(15.7)
1979	3468(872)	4.13(1.79)	33.3(14.4)
1980	5049(1137)	5.21(1.95)	42.0(15.7)
1981	5735(1358)	5.42(2.05)	43.3(16.2)

[1] Figures in parentheses are for the 48 continental states, and exclude Alaska, the District of Columbia and Hawaii.

[2] Alaska and Hawaii not included.

SOURCES: U.S. Bureau of the Census, Compendium of Government Finances Census of Governments for 1957, 1962, 1967, 1972 and 1977, and Governmental Finances for 1974-75, 1978-79, 1979-80, and 1980-81, and Historical Statistics from 1977 Census of Governments. "U.S. Department of commerce News," May 9, 1982. George Masnick and John Pitkin, "Cohort Projections of School-age Populations for States and Regions: 1985 to 2000," prepared for the School Finance Project (1982).

shows a high degree of correspondence with the size of the total State-local public sector. That is, States that spend at high levels for all functions also tend to have high expenditures per pupil for education, and vice versa. There are, however, a number of States that do not fit this pattern; this is often explained by the share of population composed of school-age children. (See Table IV-6.) Some States, such as Connecticut, New Jersey, Illinois, and Pennsylvania have relatively higher levels of expenditure for education than for all functions. Others such as North Dakota and Wyoming show the opposite pattern, i.e., relatively high general expenditures per capita and lower per pupil expenditures for education. In general, States in the first group tend to have a relatively low proportion of children to total population while States in the second group show the reverse pattern. California and Nevada fall into the second group but do not have low proportions of children relative to total population. In these two States, a low proportion of total expenditures is allocated to the elementary/secondary school sector relative to other State-local functions.

Our analyses indicate that two factors, fiscal capacity and fiscal effort for education, explain between 65 to 80 percent of the variation in current expenditures per pupil for education. In general, those States with currently high levels of per capita income and/or tax capacity spend more than those with low per capita income or tax capacity. However, the extent to which a State taps its capacity to fund elementary/secondary education is also important in shaping resource levels. Some States are able to raise substantial resources even with low fiscal efforts, because of high tax bases, while others can only raise low resource levels with high effort because they have limited resource bases. On the other hand, high capacity and high effort in combination produce very high levels of resources, while low rankings on both measures has the opposite effect.

Fiscal Capacity

Personal income per capita differed markedly among the States in calendar year 1981. As a percentage of the national average, per capita personal income ranged from a high of 124 percent (excluding Alaska and the District of Columbia) down to 69 percent. (See Map IV-4.) States with personal income levels more than 10 percent above the national average were generally in the Northeast and the Far West, but also included the energy-rich State of Wyoming. On the other end of the spectrum, States with income levels 10 percent or more below the national average were found mostly in the Southeast, but also included Utah, Vermont, South Dakota, and Idaho. In recent years, the ranking of States on per capita income has remained relatively stable, although a number of States, including Wyoming, Oklahoma, Louisiana, Texas, New Hampshire, and

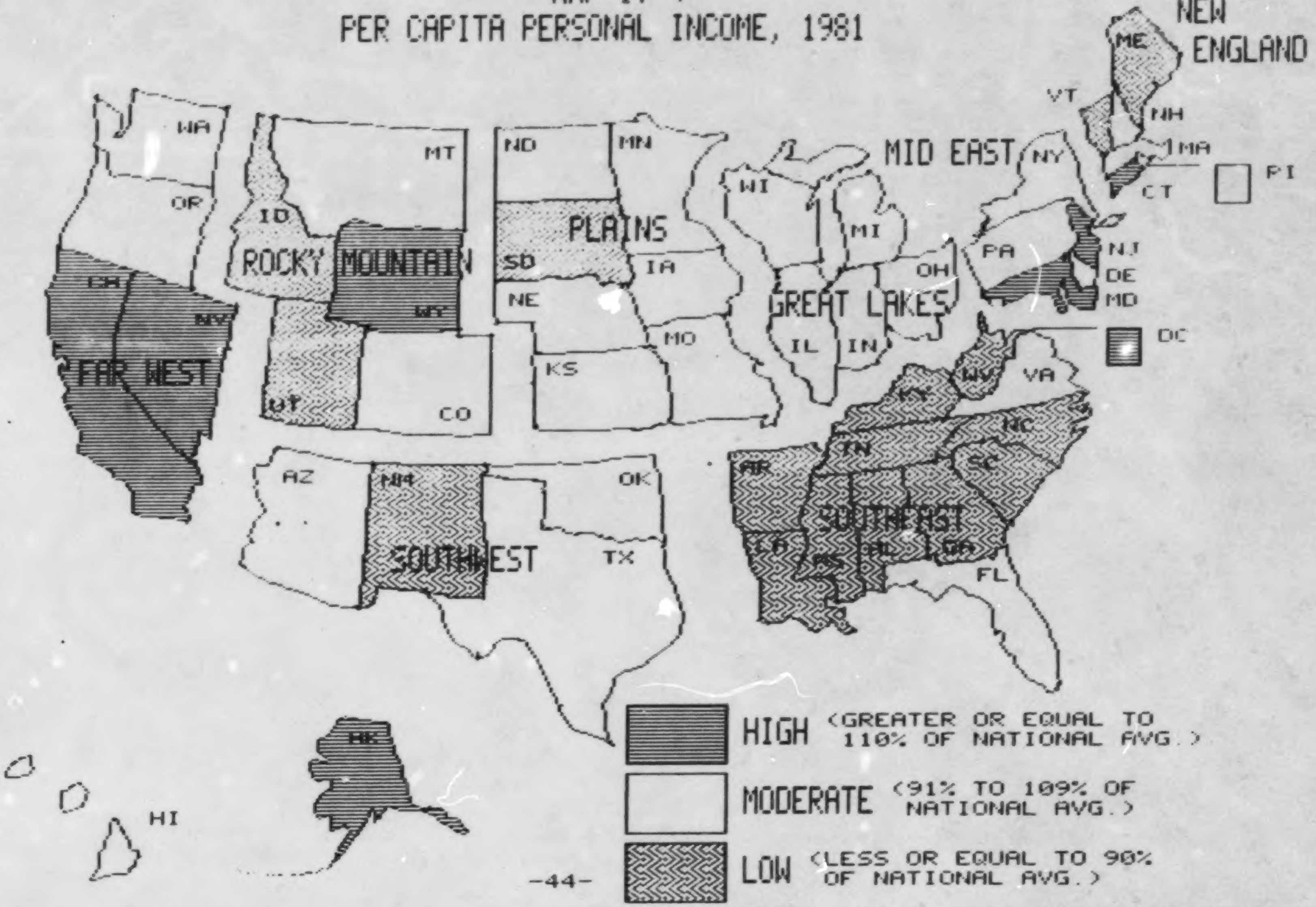
TABLE IV-6

Indices of State-Local Expenditures Per Capita and Educational Expenditures Per Pupil 1980-81

State and Region	State-Local Expenditure Per Capita	Current Educational Expenditures Per Pupil
United States	$1,769=100	$2,436=100
New England		
Connecticut	96	120
Maine	86	88
Massachusetts	109	131
New Hampshire	84	81
Rhode Island	109	120
Vermont	98	81
Mideast		
Delaware	116	128
District of Columbia	171	135
Maryland	107	110
New Jersey	106	138
New York	136	147
Pennsylvania	90	111
Great Lakes		
Illinois	99	112
Indiana	79	86
Michigan	112	121
Ohio	89	93
Wisconsin	108	110
Plains		
Iowa	100	110
Kansas	100	107
Minnesota	118	117
Missouri	80	87
Nebraska	94	97
North Dakota	109	79
South Dakota	98	72
Southeast		
Alabama	81	58
Arkansas	73	66
Florida	79	97
Georgia	85	74
Kentucky	84	78
Louisiana	100	84
Mississippi	84	73
North Carolina	79	83
South Carolina	80	72
Tennessee	79	75
Virginia	89	92
West Virginia	92	88
Southwest		
Arizona	96	99
New Mexico	105	92
Oklahoma	87	91
Texas	82	79
Rocky Mountain		
Colorado	98	100
Idaho	83	73
Montana	106	107
Utah	93	78
Wyoming	150	100
Far West		
California	116	119
Nevada	111	83
Oregon	118	127
Washington	115	112
Alaska	398	203
Hawaii	121	109

Source: U.S. Bureau of the Census, Governmental Finances in 1980-81 and National Education Association, Estimates of School Statistics, 1981-82.

MAP IV-4
PER CAPITA PERSONAL INCOME, 1981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HIGH (GREATER OR EQUAL TO 110% OF NATIONAL AVG.)
MODERATE (91% TO 109% OF NATIONAL AVG.)
LOW (LESS OR EQUAL TO 90% OF NATIONAL AVG.)

Connecticut, have had increases in real per capita income well in excess of the rates for the nation as a whole.

There is in general a fair degree of correspondence in a State's ranking on personal income per capita and on the ACIR's measure of tax capacity, although a number of States in the Northeast rank lower and others, primarily in the Southwest and Rocky Mountains, rank higher using the latter measure. The energy-producing States have high revenue potentials from oil and mineral resources which gives them a much higher ranking on tax capacity than on per capita income. These States include Alaska, Louisiana, Montana, New Mexico, North Dakota, Texas, and West Virginia. In assessing States' funding prospects, per capita income was used primarily, but for energy producing States tax capacity was also considered.

Fiscal Effort for Education

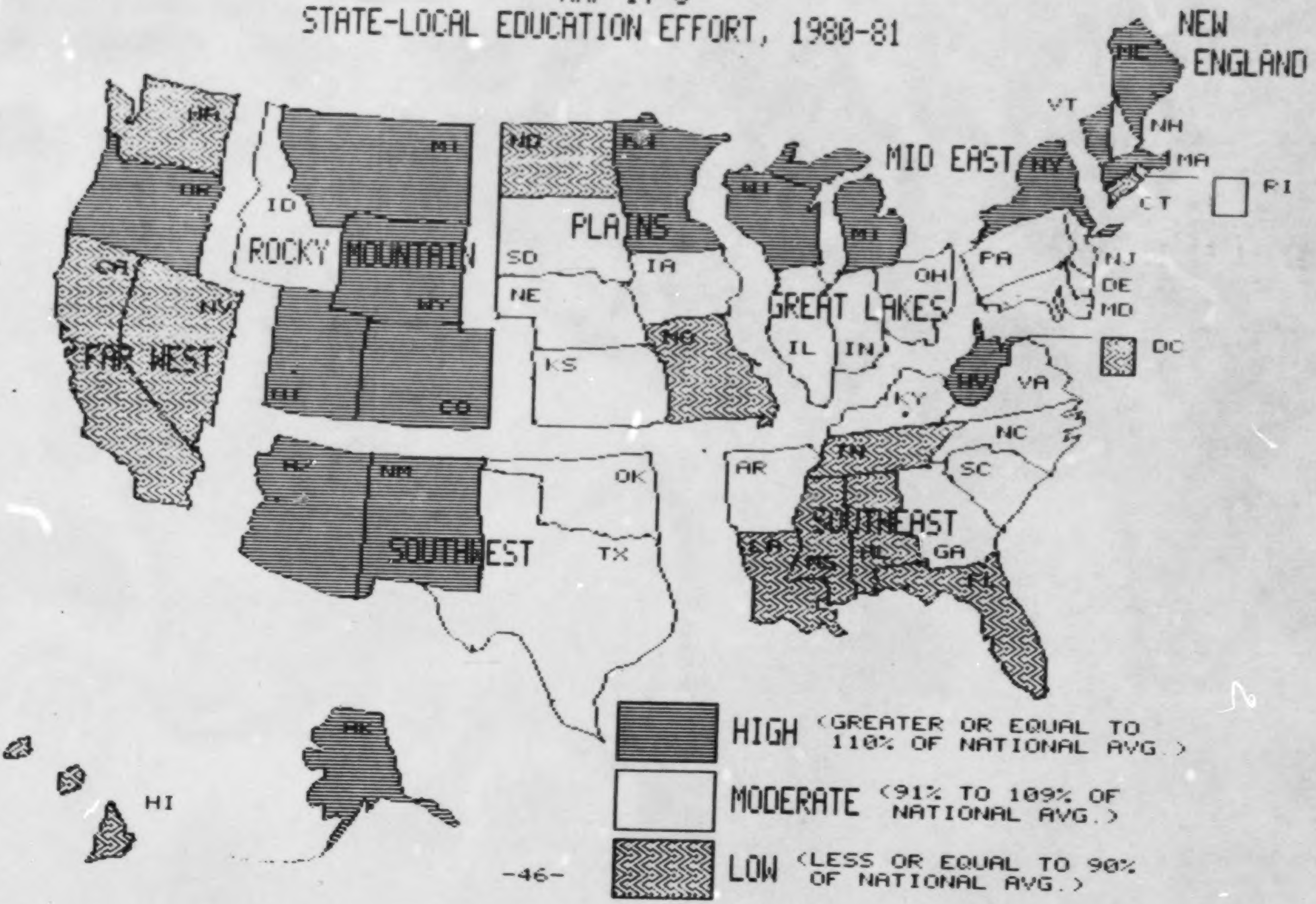
Fiscal effort for education, defined as State-local revenues for education as a percent of personal income, varied by nearly two-to-one-in 1980-81. Excluding Alaska, Utah had the highest effort, with 5.8 percent of its personal income devoted to elementary/secondary education, while the lowest States, Alabama, Nevada, and California, had efforts of 3.0 percent. States with fiscal effort at least 10 percent above the national average were found in all regions of the country, but four of the five States in the Rocky Mountain region - - Utah, Montana, Wyoming, and Colorado - - were among them. States with effort 10 percent or more below the national average in effort were found mostly in the Southeast (Mississippi, Tennessee, Louisiana, Florida, and Alabama), and the Far West (Hawaii, California, Washington and Nevada), but also included Connecticut, Missouri, and North Dakota. (See Map IV-5.)

Dependence on Federal Aid

State dependence on Federal aid to support elementary and secondary education is reflected both by the level of aid per pupil and the share that Federal aid comprises of total receipts. When States are ranked on these two measures they tend to have similar positions, with the exception of Georgia and Alabama where in 1980-81 aid per pupil was relatively lower than the Federal share of education receipts, and Massachusetts and Pennsylvania, where the reverse was true.

States that are relatively heavily dependent on Federal aid, i.e., those that received more than 10 percent of their total receipts from Federal sources, with the exception of Alaska, Hawaii, Delaware, and South Dakota, were located exclusively in the Southeast and the Southwest regions of the country. (See Map IV-6.) All four southwestern States and eleven of the twelve southeastern States (all but Virginia) had a

MAP IV-5
STATE-LOCAL EDUCATION EFFORT, 1980-81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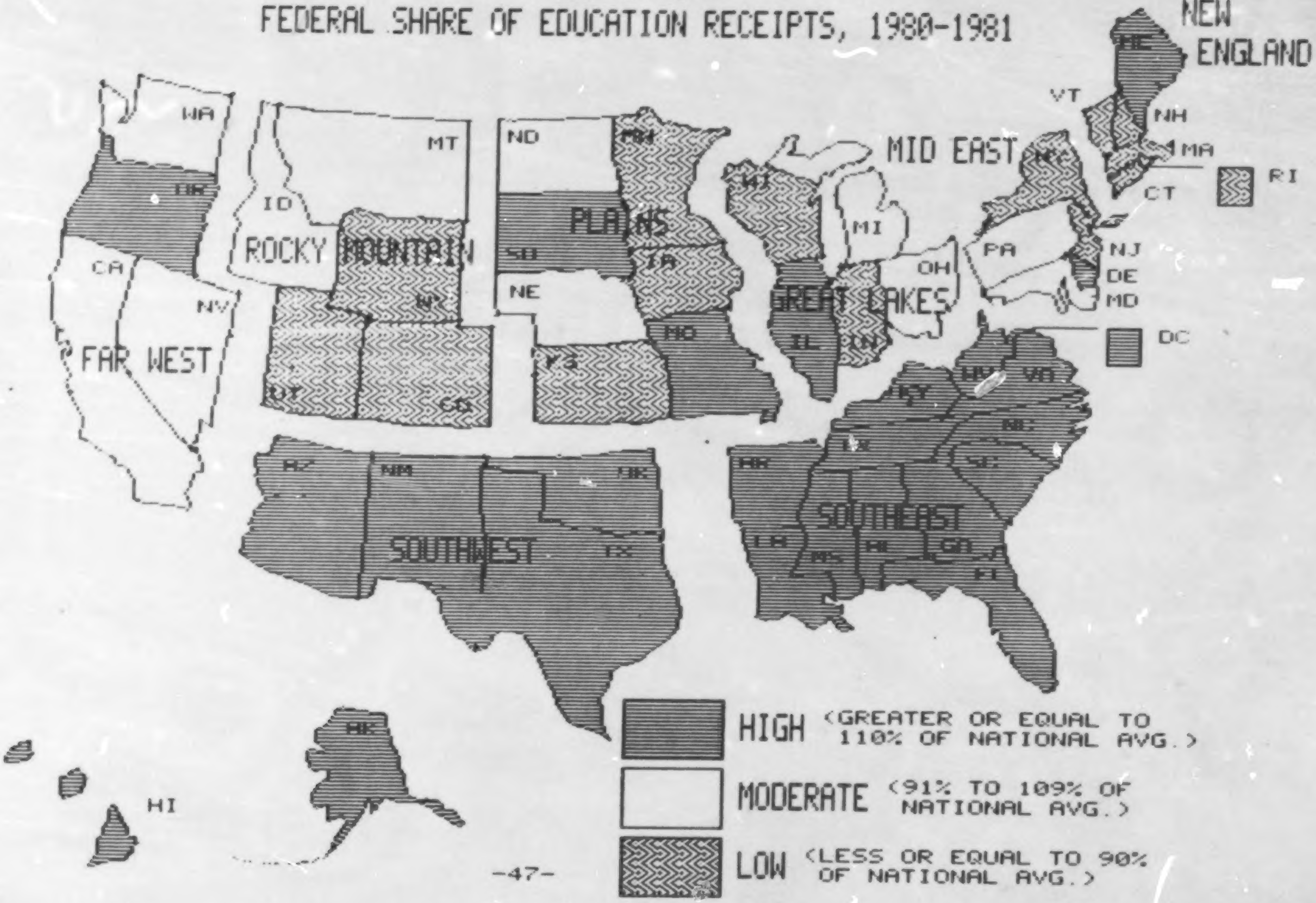
HIGH (GREATER OR EQUAL TO 110% OF NATIONAL AVG.)
MODERATE (91% TO 109% OF NATIONAL AVG.)
LOW (LESS OR EQUAL TO 90% OF NATIONAL AVG.)

MAP IV-6
FEDERAL SHARE OF EDUCATION RECEIPTS, 1980-1981



NEW ENGLAND
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GREAT LAKES
PLAINS
ROCKY MOUNTAIN
FAR WEST
SOUTHWEST
SOUTHEAST
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HIGH (GREATER OR EQUAL TO 110% OF NATIONAL AVG.)
MODERATE (91% TO 109% OF NATIONAL AVG.)
LOW (LESS OR EQUAL TO 90% OF NATIONAL AVG.)

Federal share of receipts 10 percent or more above the national average. States with relatively little dependence on Federal aid were found in all other regions of the country, but the heaviest concentration of these States was in New England and the Plains regions. All New England States except Maine and all Plains States except Missouri and South Dakota received less than 10 percent of their total receipts for elementary/secondary education from Federal aid.

Shift in Financial Responsibility to the State Level

Despite the general shift to the State level in funding responsibility for education, wide variation among the States in the State share of school receipts remains. Historical funding patterns in different regions still underpin some of the differences among States. In general, States with high State shares of funding are found in the Far West and the Southeast regions, while low State shares are more characteristic of New England, the Great Lakes, and Plains regions. Moreover, there is a tendency for high State participation in school funding to occur in States with below average per pupil expenditures and low State shares to be found in high-expenditure States. The exceptions among those with high shares were Alaska, Delaware, and Washington and on the low side, South Dakota, Vermont, and New Hampshire. (See Table IV-7 for the current State share and the change in the State share of school receipts over the 1970s.)

Spending Variation

Spending differences among the States generally declined from the late 1950s through the mid-1970s but that trend has been reversed in recent years. These trends are evident in Table IV-8 which shows the variation in current expenditures per pupil among States. Further evidence for the divergence can be drawn from Map IV-7 which compares States on their spending levels in the 1980-81 school year, classifying States as high, moderate or low in expenditure per pupil, and Table IV-9 which shows changes in expenditures per pupil in the States over the last few years. The average percentage increase in real expenditures per pupil between 1974-75 and 1979-80 for high-, average-, and low spending States was fairly close: +23 percent, +26 percent and +21 percent respectively. In absolute dollars, however, the differences were much greater. High and moderate spending States increased real expenditures by an average of $524 and $466 per pupil respectively, while low spending States increased expenditures by about $320 per pupil. Between 1979-80 and 1980-81, the trend toward divergence in expenditures continued, with high-spending States increasing real spending by an average of $101 per pupil and low-spending States showing a decrease in expenditures by an average of about $4 per pupil.

Several factors contributed to the convergence in spending differences among the States through the mid-1970s and the divergence in expenditures during the past few

Table IV-7

State Role in School Finance

State Share of Total Receipts for Public Schools

State and Region	1980-81	Change from 1971-72 1974-75	Change from 1974-75 1979-80	Change from 1979-80 to 1980-81
United States	47.0%	3.6%	5.5%	.3%
New England				
Connecticut	34.1	2.5	6.5	3.0
Maine	47.4	12.9	3.7	.3
Massachusetts	38.7	2.6	12.3	2.4
New Hampshire	7.0	.9	- .5	.6
Rhode Island	35.9	1.6	4.4	-2.8
Vermont	26.4	- 2.5	- 1.2	- .8
Mideast				
Delaware	65.7	3.5	- 3.5	2.1
District of Columbia	—	—	—	—
Maryland	39.4	2.4	- 4.5	- .6
New Jersey	38.9	6.3	9.7	-1.0
New York	39.6	- .7	1.1	.3
Pennsylvania	43.6	1.4	- 3.5	0
Great Lakes				
Illinois	37.7	3.7	- 3.4	1.0
Indiana	58.6	2.7	20.9	4.2
Michigan	34.1	6.1	- 4.5	-6.6
Ohio	38.6	6.5	3.7	1.1
Wisconsin	33.0	7.1	- 2.1	- .7
Plains				
Iowa	41.2	10.8	.4	- .3
Kansas	43.3	12.1	3.6	1.7
Minnesota	54.8	8.8	- .4	1.7
Missouri	37.9	1.4	2.1	2.4
Nebraska	15.9	8.1	- 8.4	- .8
North Dakota	42.0	11.4	2.7	-1.1
South Dakota	26.9	- 2.6	8.0	6.6
Southeast				
Alabama	63.2	- 2.4	+8.2	-3.7
Arkansas	50.9	2.6	4.2	1.1
Florida	53.7	3.8	- 3.3	.4
Georgia	54.0	3.7	4.1	-2.4
Kentucky	65.5	- 1.7	16.8	- .6
Louisiana	53.6	.6	2.3	1.6
Mississippi	51.6	3.9	.5	0
North Carolina	64.3	4.6	- 3.9	2.9
South Carolina	52.1	2.3	- .5	-3.1
Tennessee	45.8	8.1	- 5.5	1.2
Virginia	39.9	- 1.5	9.5	.5
West Virginia	59.5	- 5.6	6.2	4.4
Southwest				
Arizona	42.3	7.1	- 2.8	2.9
New Mexico	63.5	- 1.9	3.8	3.7
Oklahoma	55.9	3.7	8.8	1.5
Texas	46.3	- 1.0	5.1	- .6
Rocky Mountain				
Colorado	38.0	16.1	- .6	-1.4
Idaho	57.6	5.2	8.8	6.7
Montana	44.7	15.4	8.7	-2.6
Utah	48.2	1.9	- 2.3	.7
Wyoming	26.0	- .6	- 6.1	- .8
Far West				
California	72.9	3.8	30.3	3.5
Nevada	48.5	1.0	22.4	-7.6
Oregon	32.9	7.0	9.0	- .9
Washington	73.3	3.7	20.9	4.0
Alaska	66.8	5.1	5.7	- .5
Hawaii	86.3	- 3.6	.1	1.1

Source: N[illegible], Estimates of School Statistics, 1972-73, 1975-76, 1980-81, 1981-82.

TABLE IV-8

Variation among States in Current Expenditures Per Pupil for Elementary and Secondary Education for Selected Years 1957-1982

Current Expenditures Per Pupil[1]

	Actual	Constant Dollars[2]	Range	Ratio of Highest/Lowest	Coefficient of Variation
1957[3]	$ 300	$1,145	$150 462	3.08	24.5(24.7)
1962	415	1,383	221 601	2.72	22.7(22.2)
1967	573	1,587	339 967(918)	2.85(2.71)	21.7(19.6)
1972	970	1,944	563 1,513	2.69	22.8(21.3)
1975	1,280	2,000	891 2,095	2.35	22.6(20.9)
1977	1,594	2,187	1,085 3,061(2,346)	2.82(2.16)	24.0(19.6)
1979	1,961	2,315	1,301 3,943(2,800)	3.03(2.15)	25.3(19.7)
1980	2,200	2,386	1,470 4,697(3,066)	3.20(2.09)	25.5(19.6)
1981	2,436	2,436	1,425 4,955(3,577)	3.48(2.51)	25.5(21.2)

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[1] Expenditures per pupil in average daily attendance (ADA). Figures in parentheses exclude Alaska, Hawaii and the District of Columbia.

[2] Inflated using implicit price deflator for State-local government purchases of goods and services, 1981=100.

[3] Excludes Alaska and Hawaii.

SOURCE: National Education Association, Estimates of School Statistics, annual publication and Economic Report of the President, February 1982.

MAP IV-7
CURRENT EXPENDITURES PER PUPIL, 1980-81

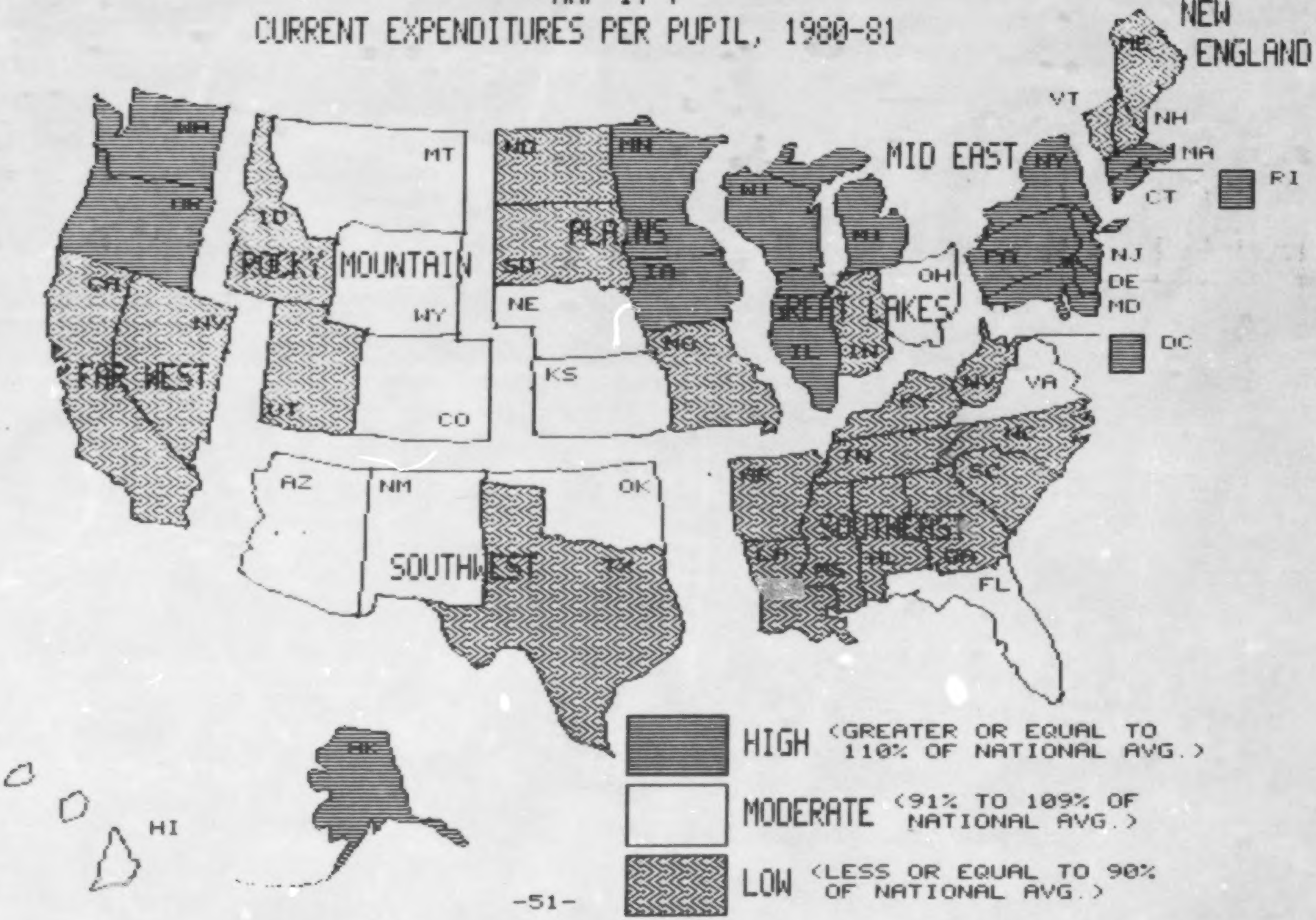
NEW ENGLAND
ME
VT
NH
MA
CT
RI
MID EAST
NY
PA
NJ
DE
MD
DC
GREAT LAKES
WI
MI
OH
IL
IN
PLAINS
MN
ND
SD
IA
NE
KS
MO
ROCKY MOUNTAIN
MT
ID
WY
UT
CO
FAR WEST
WA
OR
CA
NV
AK
HI
SOUTHWEST
AZ
NM
OK
TX
SOUTHEAST
WV
VA
KY
TN
NC
SC
AR
LA
MS
AL
GA
FL
HIGH <GREATER OR EQUAL TO 110% OF NATIONAL AVG.>
MODERATE <91% TO 109% OF NATIONAL AVG.>
LOW <LESS OR EQUAL TO 90% OF NATIONAL AVG.>

Table IV-9

Changes in Current Expenditures per Pupil
1974-75 to 1980-81

State and Region	Current Expenditures Per Pupil 1980-81	Current Expenditures Per Pupil Indexed to National Average 1980-81	Percent Change in Real Expenditures Per Pupil 1974-75 to 1979-80	Dollar Change in Real Expenditures Per Pupil	
				1974-75 to 1979-80	1979-80 to 1980-81
United States	$2436	100	+19.3%	$+386	$ +50
New England					
Connecticut	$2934	120	+14.3	$+360	$+ 47
Maine	2152	88	+23.9	+403	+ 65
Massachusetts	3186	131	+43.4	+904	+196
New Hampshire	1985	82	+25.7	+380	+122
Rhode Island	2933	120	+16.6	+390	+188
Vermont	1969	81	- 2.2	- 44	+ 11
Mideast					
Delaware	3117	128	+32.4	+764	- 8
District of Columbia	3277	135	+23.5	+648	-132
Maryland	2823	110	+17.4	+415	-125
New Jersey	3369	138	+15.9	+484	+215
New York	3577	147	+ 1.6	+ 52	+252
Pennsylvania	2695				
Great Lakes					
Illinois	2732	112	+27.8	+583	+ 55
Indiana	2092	86	+23.3	+390	+ 32
Michigan	2958	121	+36.6	+752	+166
Ohio	2261	93	+17.5	+318	+129
Wisconsin	2670	110	+13.6	+317	+ 12
Plains					
Iowa	2681	110	+25.1	+512	+135
Kansas	2606	107	+29.7	+576	+ 96
Minnesota	2857	117	+23.0	+509	+142
Missouri	2108	87	+17.5	+300	+ 99
Nebraska	2358	97	+23.5	+444	+ 28
North Dakota	1934	79	+23.1	+381	- 97
South Dakota	1760	72	+22.8	+362	-191
Southeast					
Alabama	1425	59	+11.8	+167	-169
Arkansas	1614	66	+17.0	+237	- 15
Florida	2357	97	+27.3	+486	+ 91
Georgia	1791	74	+16.3	+251	- 7
Kentucky	1892	78	+47.4	+660	-160
Louisiana	2050	84	+23.7	+389	+ 22
Mississippi	1781	73	+22.8	+321	+ 55
North Carolina	2030	83	+17.3	+299	+ 6
South Carolina	1747	72	+ 3.8	+ 62	+ 55
Tennessee	1835	75	+23.7	+346	+ 23
Virginia	2242	92	+ 9.9	+182	+216
West Virginia	2132	88	+39.6	+585	+ 67
Southwest					
Arizona	2422	99	+46.7	+820	-151
New Mexico	2234	92	+14.7	+257	+225
Oklahoma	2211	91	+30.8	+492	+124
Texas	1923	79	+28.0	+395	+117
Rocky Mountain					
Colorado	2430	100	+17.7	+357	+ 62
Idaho	1778	73	+11.4	+185	- 35
Montana	2595	107	+53.5	+875	+ 82
Utah	1903	78	+17.4	+263	+134
Wyoming	2448	101	+14.6	+3.8	- 56
Far West					
California	2156	89	+20.3	+396	-190
Nevada	2034	84	+18.2	+318	- 31
Oregon	3096	127	+30.1	+883	+143
Washington	2737	112	+35.2	+701	+ 44
Alaska	4935	203	+67.8	+2062	-139
Hawaii	2652	109	+55.2	+917	+ 74

Source: National Education Association, Estimates of School Statistics, 1974-75, 1979-80, and 1980-81, and Economic Report of the President, February 1982.

years, but three stand out in importance. The first is the convergence in fiscal capacity of States (to the mid-1970s for the ACIR tax capacity measure and to the late 1970s in per capita personal income) followed by a reversal of that trend in the last few years. (Developments in the energy-producing States accounted for the earlier divergence in the tax capacity measure.) In the early part of the decade, the income gap between the States narrowed as many States with low per capita income -- particularly in the Southeast -- had growth rates exceeding the national average. In the latter part of the decade, growth rates in this region have not been consistently higher relative to other parts of the nation. Actual declines occurred in real per capita income in the early 1980s in more than half the States. On the other hand, above average increases in personal income have occurred in several high-income States of the Northeast and in a number of high-income, energy-producing States. (See Table IV-10.) If the most recent trends continue, there could be further divergence in fiscal capacity among the States in the immediate future.

Changes in State-local fiscal effort for elementary/secondary education also contributed somewhat to the recent divergence. After convergence in State effort through the late-1970s and stability through 1980, there was a slight increase in variation between 1979-80 and 1980-81. During the early 1970s, when revenues for elementary/secondary education as a percent of income declined for the nation as a whole, the drop was particularly noticeable in States outside the Southeast. While effort remained below average in most southern States throughout the 1970s, it generally moved closer to the national average because of the sharp decline in effort in States outside the region. The result was a convergence in tax effort for education. The divergence in effort in the most recent period reflects a decline in effort in such low effort States as California and Alabama. (See Table IV-10.) As with fiscal capacity, a continuation of these recent trends would produce a further divergence in school tax effort among States in the foreseeable future.

The third factor that has contributed to the divergence in State spending for education concerns the level and the direction of Federal aid in the period since 1975. While Federal aid constitutes on average only about 8 percent of total revenues for elementary/secondary education, it has tended to act as an equalizer of interstate spending differences because it was concentrated more heavily on low-income, low-expenditure States. Changes in the level of Federal aid, however, have partly mitigated that equalizing impact. During the late 1970s, Federal aid grew relatively slowly in real dollars, and has declined since 1979 (while remaining nearly constant in current dollars).

Table IV-10

Percentage Changes in Per Capita Income and Education Effort, 1975-81

State and Region	Percentage Change in Real Personal Income Per Capita		Percentage Change in Fiscal Effort for Education	
	1975-1980	1980-1981	1974-75 to 1979-80	1979-80 to 1980-81
United States	+ 5.8%	-0.2%	-0.7%	-0.1%
New England				
Connecticut	+10.1	+0.2	+1.2	-0.2
Maine	+ 8.5	-1.4	-0.6	0.0
Massachusetts	+ 8.7	-0.4	-0.4	-0.1
New Hampshire	+12.6	-0.3	-0.2	+0.1
Rhode Island	+ 6.0	+0.1	-0.7	-0.1
Vermont	+ 3.4	-0.1	-2.0	-0.2
Mideast				
Delaware	+ 0.4	-1.5	-0.7	-0.1
District of Columbia	+ 1.9	+1.2	-0.4	+0.1
Maryland	+ 5.8	-0.3	-1.5	-0.1
New Jersey	+ 6.5	+0.1	-0.6	0.0
New York	+ 2.4	+0.7	-1.3	-0.1
Pennsylvania	+ 4.0	-0.6	-0.6	-0.2
Great Lakes				
Illinois	+ 1.5	-1.4	-0.9	0.0
Indiana	+ 3.5	-2.3	-0.8	-0.0
Michigan	+ 5.6	0.0	+0.1	-0.5
Ohio	+ 6.7	-0.9	-1.0	+0.1
Wisconsin	+ 8.0	-2.8	-0.3	0.1
Plains				
Iowa	+ 0.9	-2.0	+0.2	-0.2
Kansas	+ 8.6	-1.6	+0.2	-0.1
Minnesota	+ 9.7	-0.1	-0.7	0.0
Missouri	+ 6.8	-0.6	-0.7	0.0
Nebraska	+ 1.1	-0.6	+0.2	0.0
North Dakota	- 0.4	+6.8	+0.1	-0.7
South Dakota	+ 3.9	+1.7	-0.5	-0.3
Southeast				
Alabama	+ 5.6	-1.0	0.0	-0.6
Arkansas	+ 3.1	0.0	+0.2	-0.2
Florida	+ 5.7	0.0	-0.4	0.0
Georgia	+ 4.0	+0.3	-0.1	0.0
Kentucky	+ 2.4	+0.4	+0.1	0.1
Louisiana	+13.0	+1.4	-1.1	0.1
Mississippi	+ 6.4	-0.3	-0.2	0.0
North Carolina	+ 3.4	+0.3	-1.2	-0.0
South Carolina	+ 3.1	+0.1	-0.3	+0.2
Tennessee	+ 3.3	+0.7	-0.3	-0.1
Virginia	+ 6.3	+0.5	-0.4	-0.0
West Virginia	+ 3.9	-3.4	0.0	-0.2
Southwest				
Arizona	+ 7.5	-0.3	-1.6	+0.2
New Mexico	+ 7.6	-0.3	0.0	-0.4
Oklahoma	+13.7	+1.2	-0.1	0.0
Texas	+11.0	+1.7	-0.2	-0.1
Rocky Mountain				
Colorado	+ 9.7	+0.5	-0.5	0.0
Idaho	+ 2.2	-0.1	-0.1	-0.3
Montana	+ 3.2	+2.4	+1.2	-0.2
Utah	+ 1.8	-1.9	+0.1	-0.1
Wyoming	+16.6	-2.5	+0.3	-0.1
Far West				
California	+ 8.9	-0.4	-1.1	-0.4
Nevada	+ 5.7	-2.0	-1.1	0.1
Oregon	+ 5.8	-3.1	-0.3	0.0
Washington	+ 8.0	-1.2	-0.9	-0.3
Alaska	-11.3	+0.3	+2.4	-0.3
Hawaii	+0.9	-0.8	-0.3	0.1

Source: National Education Association, *Estimates of School Statistics*, 1975-76, 1980-81, and 1981-82; "U.S. Department of Commerce News," May 9, 1982, *Survey of Current Business*, July 1981, and Bureau of Census, *Historical Statistics*, 1977 Census of Governments; and George Masnick and John Pitkin, "Cohort Projections of School-Age Populations for States and Regions: 1985 to 2000," prepared for School Finance Project (1982).

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The distribution of Federal aid has also shifted during the period from 1975 to 1980. The largest recipients in both 1975 and 1980 tended to be poor, southern States, but the difference between the South and the rest of the nation, especially the industrial North, narrowed significantly. Federal aid to several northern States, which had received relatively little Federal aid in 1975, grew at above average rates, while aid to southeastern and southwestern States grew more slowly. By 1980, some southern States had a high percent of Federal aid, but only an average amount of Federal aid per pupil. (See Table IV-11.)

Two factors would appear to explain this development. First a large proportion of Federal aid is now accounted for by programs in which the incidence of poverty is not a factor in the allocation process. The major categorical program, Title I (now Chapter 1 of the Education Consolidation and Improvement Act), constitutes a declining proportion of total Federal education grants-in-aid. Second, there has been a major increase in Federal aid for education of the handicapped in the late 1970s; that aid tends to flow more heavily to some States with above average incomes.

Demand and Supply: The Match/Mismatch between Educational Requirements and Resources

The ability of States and localities to provide financial resources for elementary/secondary education in the future is likely to be affected by a range of factors. These include ones associated with the demand for schooling and other public services and those associated with the supply of resources. Several factors weighed heavily in the assessment of future funding prospects. Great weight was given to fiscal capacity and effort, because of their impact on past expenditure levels. Much less weight was given to Federal aid for education because it comprises a small share of revenues. It was assumed that in the immediate future Federal aid would continue to decline in real dollars. Therefore, States that are currently less dependent on Federal aid would be in a better position to adjust to declines in the Federal contribution to schooling than States that are more heavily dependent on Federal aid. Other factors that were given great weight in the assessment of future prospects for school spending were projected increases in school-age children and present expenditure levels.

The strength of potential demand for public elementary/secondary education was based primarily on projected changes in the size of the school-age population between 1985 and 2000, with some consideration given to the likely characteristics of pupils and to parental choice of public or private schooling. States were classified as high-demand States when the projected increase in the 5-17 population exceeded 25 percent, or low-

Table IV-11

Share of Education Revenues from Federal Sources, 1974-75 to 1980-81

State and Region	Percent Federal Education Aid 1974-75	Percent Federal Education Aid 1980-81	Change in Percent Federal Aid 1975-80	Change in Percent Federal Aid 1980-81
United States	7.7%	8.2%	+1.1%	-0.6%
New England				
Connecticut	2.9	5.7	+3.1	-0.3
Maine	7.8	8.8	+1.5	-0.5
Massachusetts	4.0	7.0	+2.5	+0.5
New Hampshire	2.6	4.2	+2.3	-0.7
Rhode Island	8.5	5.6	-2.7	-0.2
Vermont	5.8	6.0	+1.7	-1.5
Mideast				
Delaware	8.1	11.4	+4.7	-1.4
District of Columbia	18.2	15.8	-2.4	-0.2
Maryland	6.6	7.5	+1.4	-0.5
New Jersey	5.2	3.6	-1.2	-0.4
New York	4.6	4.8	+0.3	-0.1
Pennsylvania	8.5	7.3	-0.3	-0.9
Great Lakes				
Illinois	5.4	8.8	+6.0	2.6
Indiana	5.9	5.4	+0.8	-1.3
Michigan	3.4	7.6	+3.7	+0.5
Ohio	5.4	7.2	+1.8	0.0
Wisconsin	4.1	5.6	+0.9	+0.6
Plains				
Iowa	5.6	5.9	+1.0	-0.7
Kansas	7.2	6.1	-0.5	-0.6
Minnesota	4.3	5.5	+1.4	-0.2
Missouri	7.8	8.9	+1.6	-0.5
Nebraska	8.2	7.3	-1.0	+0.1
North Dakota	8.4	7.3	-1.2	+0.1
South Dakota	14.7	12.9	-1.2	-0.6
Southeast				
Alabama	17.6	14.4	-5.4	+2.2
Arkansas	16.2	13.9	-2.6	+0.3
Florida	8.2	10.0	+2.5	-0.7
Georgia	11.9	10.8	-0.4	-0.7
Kentucky	14.3	11.7	-2.4	-0.2
Louisiana	15.5	11.9	-1.4	-2.2
Mississippi	22.5	23.4	+0.9	0.0
North Carolina	13.3	13.2	+1.7	-1.8
South Carolina	14.4	13.3	0.0	-1.1
Tennessee	10.5	13.0	+2.4	+0.1
Virginia	9.9	8.7	-0.7	-0.5
West Virginia	10.9	11.1	-1.2	+1.4
Southwest				
Arizona	9.4	10.5	+1.1	0.0
New Mexico	17.2	15.2	-1.6	-0.4
Oklahoma	11.2	10.8	-0.4	0.0
Texas	10.6	10.0	-0.3	-0.3
Rocky Mountain				
Colorado	6.9	6.0	-1.1	+0.1
Idaho	9.7	7.9	0.9	-0.9
Montana	8.2	8.4	-0.1	+0.3
Utah	8.0	6.8	-1.1	-0.1
Wyoming	6.9	6.1	-1.0	+0.2
Far West				
California	9.3	7.1	+0.1	-2.3
Nevada	5.5	7.3	+2.7	-0.9
Oregon	5.7	8.7	+3.1	-0.7
Washington	7.8	8.4	+0.6	0.0
Alaska	17.2	12.5	-4.8	+0.1
Hawaii	9.0	11.4	+3.5	-1.1

Source: National Education Association, Estimates of School Statistics, 1975-76, 1980-81, and 1981-82.

demand States when the projected increase was under 25 percent or negative. States with different levels of demand also tended to differ systematically with regard to several factors related to the potential supply of funds. These differences are important because of their consequences for the match or mismatch between educational requirements and resources.

The major area of difference between high- and low-demand States is current levels of expenditure per pupil. (See Table IV-12.) Low-demand States currently tend to have high expenditure levels (110 percent of the national average or above), while high-demand States tend to be low spenders (90 percent of the national average or below). In the future, States with projected low increases or decreases in demand should have an easier time maintaining their relatively high per pupil spending levels than high-demand States will have in raising real spending levels.

A second area of difference is in the fiscal capacity of low-demand and high-demand States. The low-demand group tends to be characterized by higher capacity than high-demand States. Even when adjustments in fiscal capacity are made to reflect the revenue potential of States with energy resources, only 62 percent of the high-demand States have moderate or high fiscal capacity compared with 86 percent of low-demand States. Recent changes in personal income indicate a widening rather than a narrowing of the gap between States with high and low fiscal capacity, thus suggesting that some States with high projected demand for education will continue to have lower capacity to support education in the future than low-demand States with currently larger resource bases.

States with low or high projected demand for education vary in fiscal effort for elementary/secondary education. The low-demand States nearly all have moderate or high levels of effort, while on the other hand, high-demand States show no pattern on effort. Should past patterns prevail in the future, low-demand States would continue to exert at least moderate effort for education. High-demand States are likely to be differentiated by region, with low effort continuing in the Southeast and Far West, and higher effort in States outside these regions.

Finally, low-and high-demand States differ to some degree in their dependence on Federal aid, with the low-demand States less dependent on Federal aid. If there are further declines in Federal aid, high-demand States would be likely to face greater difficulty in the adjustment process, particularly those with lower levels of fiscal capacity.

Table IV-12

Fiscal Characteristics of States Grouped by Levels of Growth Projected in the School-Age Population, 1985-2000

State	Fiscal Capacity 1981	Education Effort 1980-81	Percent Federal Education Aid 1980-81	Current Expenditures Per ADA 1980-81
(over 35% growth rate)				
Arizona	LM	H	H	M
Colorado	MH	H	L	M
Hawaii	MH	L	H	MH
Idaho	L	MH	M	L
Mississippi	L	L	H	L
Montana	LM*	H	M	MH
Nevada	H	L	L	L
New Hampshire	M	M	L	L
New Mexico	L*	H	H	LM
North Dakota	M*	L	L	L
Oklahoma	M*	M	M	LM
Oregon	LM	H	MH	H
South Dakota	L	LM	H	L
Texas	M*	M	H	L
Utah	L	H	L	L
Wyoming	H	H	L	M
(25% - 35% growth rate)				
Alabama	L	L	H	L
Alaska	H	H	H	H
Arkansas	L	LM	H	L
California	H	L	L	L
Florida	M	L	H	M
Kansas	M*	M	L	MH
Kentucky	L	M	H	L
Louisiana	L*	L	H	L
Maine	L	H	MH	L
Nebraska	M	M	L	M
Tennessee	L	L	H	L
Vermont	L	H	L	L
Washington	MH	L	M	H
(5-25% growth rate)				
(15-25%)				
Georgia	L	LM	H	L
Iowa	M*	MH	L	H
Minnesota	M	H	L	H
South Carolina	L	MH	H	L
(5-15%)				
Indiana	LM	M	L	L
Missouri	LM	L	MH	L
North Carolina	L	LM	H	L
Virginia	M	LM	MH	LM
West Virginia	L*	H	H	L
Wisconsin	M	H	L	H
(under 5% growth rate or decline)				
Connecticut	H	L	L	H
Delaware	MH*	MH	H	H
D.C.	H	L	H	H
Illinois	MH	M	MH	H
Maryland	H*	M	LM	H
Massachusetts	MH*	H	L	H
Michigan	M	H	LM	H
New Jersey	H*	H	L	H
New York	MH*	H	L	H
Ohio	M	M	L	LM
Pennsylvania	M*	MH	L	H
Rhode Island	M*	LM	L	H

H = High (110% or more of the national average)
MH = Moderate to High (105 to 109% of national average)
M = Moderate (96 to 104% of national average)
LM = Low to Moderate (91 to 95% of national average)
L = Low (90% or more below national average)
*1980 index of tax capacity is 10 points or more higher than 1980 index of income per capita.

Source: Derived from Tables IV-1, IV-6, IV-11 and B-1.

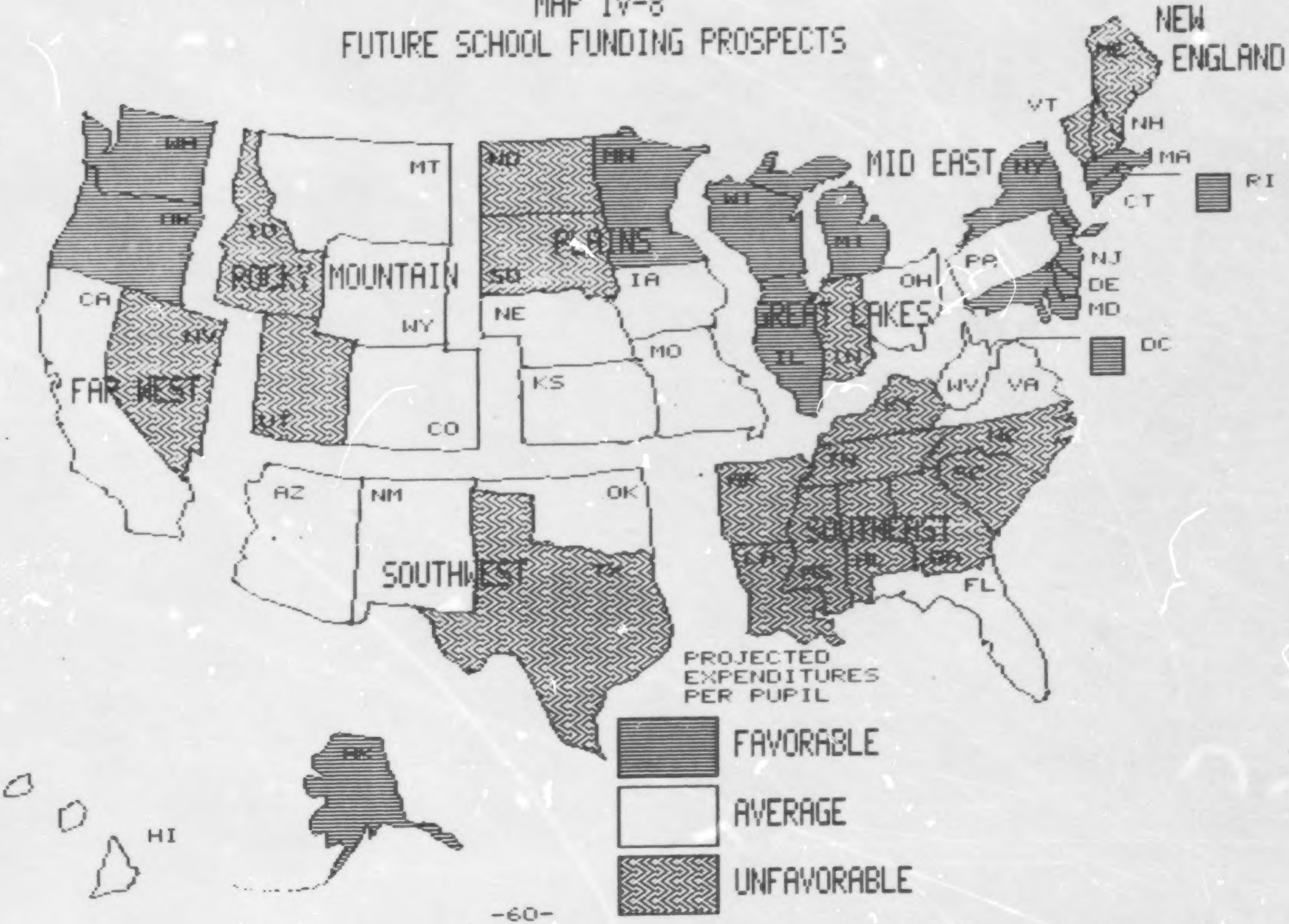
Funding Prospects for The Fifty States

States were classified into three distinct groups based on their funding prospects. (See Map IV-8.) The first group are those where school funding prospects are considered favorable - - those likely to have expenditures at least ten percent above the national average. These are States which are characterized by several factors that probably will contribute to education expenditures at levels well above the national average. (See Table IV-13.) The fifteen States identified as having good prospects are already spending at high levels. Two-thirds of the States in this group will face a low increase in demand for schooling; combined with current high spending levels, they should experience relatively little difficulty in financing schools. Most are in the Northeast and north central parts of the country. All but Oregon have moderate or high fiscal capacity as measured by per capita personal income or by the ACIR measure of tax capacity.

Another group, comprising seventeen States can be viewed as having average funding prospects - - expenditures from 91 to 109 percent of the national average. They are located in every region but New England. These States are more heterogeneous than the other two groups but States in this group usually have a combination of factors that suggest that expenditures will differ from the average by less than ten percent. Student demand and educational need vary from high to low. Fiscal capacity tends to be moderate while school tax efforts range from low to high. Some States have a heavy reliance on Federal education aid which may create funding problems if further cutbacks occur, but for others the Federal share is low. The majority of these States currently spend in the low to moderate range; some may experience relative increases in expenditures in the future while others may have less than average growth.

In a third group of States funding prospects are unfavorable. Nineteen States are anticipated to have expenditures ten percent or more below the national average. The States in this group share a number of characteristics. Without exception, these are States which have had low per pupil expenditures in recent years. All face moderate to high enrollment growth. Many of these States have a high incidence of children with special educational needs. Fiscal capacity, with the exception of Nevada and the energy-rich States of Louisiana, North Dakota, and Texas, is low. Ten of these States have low or moderately low education effort, which suggests less commitment to public schools. One State, Utah, exerts a very high tax effort, but given its anticipated public school enrollment growth rate - - the highest in the country - - and its low fiscal capacity, the State may face school finance problems. Many of the lowest spending States have the heaviest reliance on Federal aid, which could lead to further funding difficulties with anticipated declines in Federal aid.

MAP IV-8
FUTURE SCHOOL FUNDING PROSPECTS


NEW ENGLAND
MID EAST
GREAT LAKES
PLAINS
ROCKY MOUNTAIN
FAR WEST
SOUTHWEST
SOUTHEAST
WA
OR
CA
NV
ID
MT
WY
UT
CO
AZ
NM
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NC
WV
VA
PA
NY
NJ
DE
MD
DC
ME
VT
NH
MA
CT
RI
AK
HI
PROJECTED EXPENDITURES PER PUPIL
FAVORABLE
AVERAGE
UNFAVORABLE

83

Characteristics of States Grouped by Funding Prospects

State	Projected Increase in Demand 1985-2000	Student Need, 1980	Fiscal Capacity 1981	Education Effort 1980-81	Federal Share of Education Revenues 1980-81	Education Expenditures 1980-81
Funding Prospects are Favorable						
Alaska	MH	L	H*	H	H	H
Connecticut	L	M	H	L	L	H
Delaware	L	M	MH	MH	H	H
D.C.	L	H	H	L	H	H
Illinois	L	M	MH	M	MH	H
Maryland	L	L	H	M	LM	H
Massachusetts	L	M	MH	H	L	H
Michigan	L	M	MH	H	LM	H
Minnesota	M	L	M	H	L	H
New Jersey	L	H	H	MH	L	H
New York	L	H	MH	H	L	H
Oregon	H	L	LM	H	MH	H
Rhode Island	L	M	M	LM	L	H
Washington	MH	L	MH	L	M	H
Wisconsin	LM	L	M	H	L	H
Funding Prospects are Average						
Arizona	H	M	LM	H	H	M
California	M**	M	H	L	L	L
Colorado	H	L	MH	H	L	M
Florida	MH	H	M	L	H	M
Hawaii	H	L	MH	L	H	MH
Iowa	M	L	M	MH	L	H
Kansas	MH	L	M	M	L	MH
Missouri	LM	M	LM	L	MH	L
Montana	H	M	LM*	H	M	MH
Nebraska	MH	L	M	M	L	M
New Mexico	H	H	L*	H	H	LM
Ohio	L	M	M	M	L	LM
Oklahoma	H	M	M*	M	H	LM
Pennsylvania	L	M	M	MH	L	H
Virginia	LM	M	M	LM	MH	LM
West Virginia	LM	H	L*	H	H	L
Wyoming	H	L	H*	H	L	M
Funding Prospects Are Unfavorable						
Alabama	MH	H	L	L	H	L
Arkansas	MH	H	L	LM	H	L
Georgia	M	H	L	LM	H	L
Idaho	H	M	L	MH	M	L
Indiana	LM	L	LM	M	L	L
Kentucky	MH	H	L	M	H	L
Louisiana	MH	H	L*	L	H	L
Maine	MH	M	L	H	MH	L
Mississippi	H	H	L	L	H	L
Nevada	H	L	H*	L	L	L
New Hampshire	H	L	M	M	L	L
North Carolina	LM	H	L	LM	H	L
North Dakota	H	M	M*	L	L	L
South Carolina	M	H	L	MH	H	L
South Dakota	H	H	L	LM	H	L
Tennessee	MH	H	L	L	H	L
Texas	H	H	M*	M	H	L
Utah	H	L	L	H	L	L
Vermont	MH	L	L	H	L	L

*States where 1980 index of tax capacity is 10 points or more higher than 1980 index of income per capita. On tax capacity Montana, Oklahoma and Texas are classified as H, Louisiana, New Mexico and North Dakota as MH, and West Virginia as LM.

**California's ranking was reduced from MH to M due to the large increase in private school enrollment.

Source: Derived from Tables IV-4 and IV-12.

As this discussion suggests, there is a very high correlation between current expenditure levels and the assessment of funding prospects. There are several reasons for this strong relationship. One is that past levels of expenditure and education effort were a major factor in the assessments. For most States, relative levels of spending and effort have been rather stable over the past fifteen years. Where there have been major shifts, such as the decline in Vermont and increases in Nebraska and Kansas in the last ten years, they have often been due to political decisions that are not easy to anticipate, rather than changes in fiscal capacity or enrollments, which are far more predictable.

Furthermore, projected increases in the number of children and current expenditure levels tend to be inversely related. In general, the low-expenditure States are projected to have high increases in school-age children and high-expenditure States to have low increases or declines. These patterns will tend to reinforce current spending levels. Small increases in enrollment will make it easier for high-spending States to maintain those levels, while large increases in low-spending States, many of which are also poor, will make it difficult for those States to close the gap between them and the national average.

Finally, it should be noted that the proportion of the nation's school-age children in States with unfavorable funding prospects is projected to show a significant upturn in the future. In 1980, the nineteen States that compose the unfavorable category contained about 29 percent of the 5-17 population. By 1990, the proportion will be nearly one-third, and by 2000, nearly 35 percent of the total. Should the four States (California, Missouri, Ohio, and West Virginia) which fall on the borderline between average and unfavorable prospects fall back below 90 percent of national average spending levels, the proportion of school-age children in the unfavorable category will exceed 50 percent in 1990 and rise to nearly 53 percent by the year 2000.

Caveats about State Assessments

The assessment of prospects in a number of States does not appear to be consistent with their current fiscal condition. There are two groups of such States - - those that are currently facing severe revenue shortfalls but are considered to have good prospects, and others whose current fiscal position appears to be strong, yet are considered to have average or poor prospects. The reason for the lack of congruence is that present spending patterns in these States do not reflect their fiscal condition. In one case, hard-pressed industrial States plus Oregon and Washington have been able to maintain high expenditure levels despite the recession. Even if relative expenditures slip somewhat (and that was not evident in estimates for the 1981-82 school year) due to cutbacks or deferrals in State aid, they will spend well above average. On the other hand, there are some States that have the fiscal capacity to support high levels of expenditures but have chosen either to spend their money on other services (California, Nevada, Wyoming) or to keep all public spending low (Texas).

The assessment of some States was particularly difficult. In some cases this was because they were at or approaching the dividing line between categories, especially that between unfavorable and average. In other States long-term economic prospects are problematic and that clouds the school funding picture. The States in the first group were California, Maine, Missouri, Ohio, Virginia, and West Virginia. Virginia and Ohio have fluctuated around 90 percent of the national average of school expenditures in the past decade, but expenditures in 1980-81 (and estimates for 1981-82) were above 90 percent. They were therefore assessed as having average prospects. Maine, Missouri and West Virginia gradually rose from the low to the high 80s percent of average expenditures during the 1970s. Because of high projected demand and low capacity, Maine was placed in the unfavorable category in terms of prospects, but it could move into the average category. Missouri and West Virginia were assessed as having average prospects because of factors that could promote continued upward movement. These include relatively low increases in demand in both States, a court decision in West Virginia overturning the present funding system, and approval by the voters in Missouri of a one percent increase in the sales tax with proceeds going to education. California has slipped below 90 percent of national average expenditures as the full impact of Proposition 13 has become apparent with the exhaustion of the State's revenue surplus. It was assumed, however, that such low expenditures are a temporary phenomenon and that the State may react by putting sufficient additional revenues into education to pull the State back above 90 percent of the national average.

The other group of problematic States is comprised mainly of those that have been hard hit by the current recession. There is some question about the ability of these States to recover quickly from its effects. In States such as Illinois, Michigan, Ohio, Oregon, Pennsylvania, and Washington, where the economies are heavily dependent on automobiles, steel, and wood products, it is unclear whether jobs that have been lost over the past few years will be regained or how long it will take for the States' economies to adjust to the changes in these industries. However, with the exception of Pennsylvania, where expenditures have been affected by the recession, and Ohio which is not a high-spending State, all the other States have been able to maintain relatively high expenditure levels during the recession. It was assumed that they would continue to be high-spending States even if some long-term economic adjustments would be required.

It was not considered unlikely that real or relative spending levels in some of these States might decline somewhat from current levels. However, two of the States, Michigan and Oregon, currently have spending levels so far above the national average that it is quite unlikely that they would fall sufficiently to place them in the average category. Illinois, Ohio, and Washington are far more likely to slip into a lower category, because they are only slightly above the cutting points that separate categories. Pennsylvania, which has already experienced a relative decline in its expenditure levels and is estimated to fall further in 1981-82, shows evidence of a decreased commitment to education, and was thus placed in the average prospects group. It could, however, remain a high-expenditure State, particularly since it is projected to have a continued decline in its school-age population.

Prospects for school funding could also be considered uncertain in Massachusetts because of Proposition 2 1/2. However, the situation in the State is similar to that in Michigan and Oregon. Expenditures are currently so far above the national average that even if expenditures should fall, they should remain well above average. Preliminary estimates suggest that expenditures continued to grow faster than the national average in the first year under Proposition 2 1/2. Declines in the number of students may account for the continued growth in expenditures despite reductions in local revenues due to 2 1/2.

Final Remarks

A few final observations about the States are in order before profiles that explain each State's funding prospects are presented. In considering the potential resource bases available to States to finance elementary/secondary education, it should be noted that, for a variety of State-specific reasons, some States do not tap both of the major State revenue sources - - broad-based personal income taxes and general sales taxes. While only New Hampshire and Alaska levy neither major tax, another eight States do not have an income tax, and three do not use a broad-based sales tax. States without an income tax fall into all three categories in terms of school funding prospects. Two of the States without a sales tax fall into the favorable prospects group. In times of economic stress, States without one of the major taxes may be particularly hard-pressed to maintain revenue collections. In the long term, however, the revenue bases in States with favorable prospects should be sufficiently elastic to justify that assessment, since their fiscal capacity is average or above.

A number of States face constitutional or statutory limitations on revenue levels or growth rates in revenues at the local or State levels or both. Other States have indexed their State income tax in order to limit increases in revenues that result from "bracket creep" due to inflation. Among the States with indexing provisions in the favorable prospects group are Wisconsin, Minnesota, and Oregon. Again, in the short run, these constraints on revenue increases may limit a State's ability to provide financial support for schools, but in the long-run, they do not, on balance, appear to diminish what appear to be favorable funding prospects.

Another factor that might affect the availability of funds in some States is the recent trend in the size of the public sector. For a number of these States, real expenditures per capita have either declined or grown at a below average rate in the late 1970s or early 1980s. Should that continue, it could lead to greater competition for funds among all public services. This might be particularly important in States such as Hawaii and Colorado, which are projected to have large increases in the number of school-age children as well as an increase in the proportion of such children.

Finally, our assessment of prospects has essentially viewed each State as an entity. Because education is provided in local districts with much local effort, this approach is not sensitive to variability in funding prospects within States. In this context it is important to note that in only two States with favorable funding prospects did the State provide over 50 percent of the receipts for elementary/secondary education in school year 1980-81 and the rest (excluding Alaska, and the District of Columbia) provided under 40 percent. For States with unfavorable funding prospects the proportions were nearly reversed. States that rely heavily on local revenues for schooling often have wide variations in interdistrict spending and a strong relationship between local property wealth and levels of spending. This suggests that within the States with favorable funding prospects, there will be school districts where the funding picture is not as bright as the overall State picture. For one group of districts, those serving large cities, the prospects for funding are analyzed in a supplement to this report.

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Appendix A

THE COMPOSITION OF THE REGIONS

NEW ENGLAND

Maine
New Hampshire
Vermont
Massachusetts
Rhode Island
Connecticut

MIDEAST

New York
New Jersey
Pennsylvania
Delaware
Maryland
District of Columbia

GREAT LAKES

Ohio
Indiana
Illinois
Michigan
Wisconsin

PLAINS

Minnesota
Iowa
Missouri
North Dakota
South Dakota
Nebraska
Kansas

SOUTHEAST

Virginia
West Virginia
North Carolina
South Carolina
Georgia
Florida
Kentucky
Tennessee
Alamama
Mississippi
Arkansas
Louisiana

SOUTHWEST

Oklahoma
Texas
New Mexico
Arizona

ROCKY MOUNTAIN

Montana
Idaho
Wyoming
Colorado
Utah

FAR WEST

Washington
Oregon
California
Nevada
Alaska
Hawaii

Appendix B

PROJECTIONS OF SCHOOL-AGE POPULATION BY STATE

Projections of population were completed for the School Finance Project in early 1982 by George Masnick and John Pitkin of the MIT/Harvard Joint Center for Urban Studies. These projections estimated the population by five-year age groups for each State and Census Region for five-year intervals between 1985 and 2000. They were based on the 1980 Census of Population.

Certain key assumptions affect the projections for each State. The authors assumed that the increase in rates of fertility that began in 1975 will continue to 1985. Thereafter, fertility levels were held constant. Fertility rates were determined for each State based on the age distribution of its population. For mortality rates, the national survivorship probabilities developed by the U.S. Census for the various age groups were used in the State projections and modified by the age composition of each State's population. Adjustments for the Census undercount of population and for variations in the migration rates of each State were also undertaken.

The fertility assumptions led to the following estimates for children under 18 throughout the nation: 1) For the 0-4 age group, the number will rise until 1990 after which a decline will set in because the large cohort of women born between 1955 and 1960 will be over 30 and beyond their prime reproductive years. They will be followed by children of the baby bust generation, i.e., a relatively smaller number of women born between 1962 and 1975. 2) For children between 5 and 13, a substantial growth is anticipated between 1985 and 1995. This reflects the large cohort of the baby boom generation moving through their prime reproductive years. 3) Children who will be 14-17 years between 1985 and 2000 are already born and overall decline during the 1985-90 period reflects the impact of the baby bust generation.

Limitations. Assumptions about likely demographic trends for the decade of the 1980s were determined and these trends were assumed to hold for the 1990s as well. The numbers for the 1980s are therefore forecasts and those for the 1990s are extrapolations of forecasts under the assumptions that nothing will change. The further out one goes in the projection period the more unrealistic is the assumption that the demographic patterns will be constant. Variations in migration rates and fluctuations in fertility rates will introduce errors into the projections. The authors believe that holding fertility constant after 1985 will undoubtedly prove to be inaccurate.

Assumptions for some regions and States appear particularly problematic and may greatly affect the projections. The apparent past growth in population in the East South Central Census region stems in part from the reduction of the Census undercount between 1970 and 1980. However, the authors did not reduce the projections to take that into account because they believe that the inmigration rate to that region will be high because the low wage levels there will attract jobs. It is unclear why those low wages have not led to such increases in jobs and higher inmigration in the past but should do so in the future. Projections for Mississippi proved to be the most difficult for several reasons. Its very high fertility rate was assumed to continue throughout the period. If the fertility rate declines, it will have a major impact on projections of school-age population in that State. The region with the greatest range of error is the Mountain States where a plus or minus five percent error is acknowledged, with substantially more error at the State level. In addition, some may view their assumptions about changes in the growth rates for the States in this region as arbitrary: they have slowed the observed growth rates in Colorado, Arizona and Nevada and boosted the growth rates in all other States in the region except Wyoming.

Demographic trends for New York State were used to model future trends for New Jersey and Pennsylvania as well. That could have the effect of overstating the magnitude of population loss in New Jersey and Pennsylvania. For Florida, the assumption was made that the inmigration rate will be half of what it was in the 1970s. If this assumption proves wrong, then that State's population projection will be in error.

Population figures for 1980 presented in tables in this report represent those from the 1980 Census. Masnick and Pitkin adjusted these figures for the undercount before calculating their projections for 1985, 1990, and 2000. Their projections, are not comparable to the 1980 Census figures which do not take account of the undercount. Therefore, 1980 population should not be compared to the projections for the later years, because such a comparison would overstate the amount of growth (or understate decline).

Appendix Table B-1

Projected School-Age Population, 1985-2000
(thousands)

State and Region	1985	1990	2000
United States	44,880.0	47,259.1	53,026.6
New England			
Connecticut	541.8	505.7	507.3
Maine	232.3	245.9	297.9
Massachusetts	980.7	941.3	1,001.5
New Hampshire	194.8	215.1	287.3
Rhode Island	160.4	156.8	158.3
Vermont	104.7	112.7	136.5
Mideast			
Delaware	109.7	108.1	104.3
District of Columbia	77.0	63.6	48.9
Maryland	776.0	758.8	749.0
New Jersey	1,301.1	1,211.8	1,134.2
New York	2,987.9	2,760.1	2,513.6
Pennsylvania	2,047.2	1,961.6	1,886.8
Great Lakes			
Illinois	2,166.6	2,149.6	2,022.8
Indiana	1,121.1	1,156.3	1,179.6
Michigan	1,865.7	1,865.7	1,891.6
Ohio	2,056.3	2,015.4	1,947.9
Wisconsin	944.1	996.6	1,062.2
Plains			
Iowa	577.5	622.8	667.5
Kansas	468.1	463.2	522.7
Minnesota	814.0	872.7	969.3
Missouri	955.7	1,016.0	1,067.9
Nebraska	324.3	363.9	435.1
North Dakota	139.1	160.4	192.6
South Dakota	149.0	174.9	209.9
Southeast			
Alabama	855.3	920.2	1,092.1
Arkansas	517.5	573.1	670.2
Florida	1,682.4	1,834.6	2,164.6
Georgia	1,178.3	1,215.8	1,382.0
Kentucky	809.3	886.9	1,086.3
Louisiana	976.5	1,099.5	1,314.1
Mississippi	623.7	772.4	984.1
North Carolina	1,172.0	1,181.0	1,309.0
South Carolina	679.8	711.3	809.9
Tennessee	970.0	1,037.9	1,247.3
Virginia	1,029.3	1,040.9	1,149.5
West Virginia	413.5	421.9	435.8
Southwest			
Arizona	604.3	700.0	946.4
New Mexico	315.5	368.4	463.3
Oklahoma	657.6	750.5	903.1
Texas	3,310.1	3,755.5	4,815.4
Rocky Mountain			
Colorado	597.0	670.2	870.9
Idaho	250.6	303.2	395.7
Montana	173.9	199.8	238.4
Utah	445.9	585.7	816.3
Wyoming	121.7	158.1	232.5
Far West			
California	4,523.3	5,009.2	5,988.4
Nevada	161.7	187.3	259.6
Oregon	575.3	679.5	898.6
Washington	852.5	912.0	1,077.4
Alaska	93.0	101.2	118.7
Hawaii	199.8	224.5	281.5

Source: George Masnick and John Pitkin, "Cohort of School-Age Populations for States and Regions," prepared for the School Finance Project (1982).

Appendix C

INDEX OF STUDENT EDUCATIONAL NEED

Three characteristics of the school-age population and public school enrollments were incorporated into a composite index of a State's educational need. These characteristics include: 1) the proportion of children age 5-17 in poverty; 2) the percent of public school enrollment served as handicapped under P.L. 94-142; and 3) the percent of public school enrollment estimated to have limited-proficiency in English. These factors were given special consideration since the provision of resources for these target group populations has been a concern in several pieces of Federal education legislation.

After the proportion of children in each State in each of the categories of special education need was calculated, States were classified as high, medium and low (and no data in the case of limited-English children) on each dimension. On the poverty measure, States were ranked high if their school-age poverty counts exceeded 15.0 percent of the school-age population; moderate, if the range was from 12.0 to 14.9 percent; and low, if poverty concentrations were 11.9 percent or below. On the handicapped measure, States were classified as high, moderate, and low if the incidence of children was respectively 10.0 percent and above, between 8.0 and 9.9 percent, and below 8.0 percent. Finally, on the measure of limited proficiency in English, States were classified as high when their incidence of children exceeded 10.0 percent; moderate, between 4.0 and 9.9 percent; low, between 0.5 and 3.9 percent; and non-existent, when data were not available on this measure. The table that follows shows the range on each of the classifications, the number of States in each classification, and the weighting assigned to each classification.

In developing the index, different weights were assigned to the three types of special needs children. Poverty was viewed as the most significant factor for a number of reasons and was assigned a higher score. First, unlike conditions of handicapping that tends to be more evenly distributed across the population, States and local jurisdictions exhibit much wider variation in their incidence of poverty. Moreover, the identification and classification of children in different categories of handicapping may be more a reflection of State policy decisions and pedagogical practices than of incidence of need. Poverty is a condition of the student population over which policymakers and practitioners have much less control. Finally, the proportion of Federal funds allocated for each of the special needs groups is much higher for poverty than for the other student needs groups, despite the relative decline in the share of funds in the poverty program over time. To the exent that Federal priorities are reflected in budgetary allocations, disadvantaged children have been the major focus of Federal education policy.

Each of the other special needs populations was assigned a score based on probable education cost differences in serving them. Because the cost of serving most handicapped children is generally higher than for "average" children, higher scores were given to each category for the handicapped than for the limited-English proficient. For services for limited-English-proficient children, there is less agreement about the cost of services, so such children were counted less in the index than either the poverty or the handicapped classification.

The scores ranged from a low of 6 to a high of 14. A total score from 11.5 to 14 on the index classified a State as high need; 8.5 to 11 as moderate; and 6 to 8 as low. These cutting points were established so that one-third (17) of the States were classified in each category of composite need. Table IV-4 in the text shows that there is a high degree of correspondence between a State's classification on poverty and its aggregate index of need. This would be anticipated based on the additional weighting given the poverty factor in the index. There are two exceptions to this pattern -- Connecticut and New Jersey, both in States that are at the margins of different categories of classification. Connecticut is classified as low on poverty, but moderate on the index of education need because the State ranks high and moderate in its respective incidence of handicapped and LEP children. New Jersey is similarly moved up a classification from moderate on poverty to high on its index of educational need, because the State ranks high on the incidence of handicapped children.

Appendix Table C-1

Classification of States on Educational Need

	POVERTY			HANDICAPPPED			LIMITED-ENGLISH		
	Range	States	Weights	Range	States	Weights	Range	States	Weight
High	15.0% & Above	16	3	10.0% & Above	16	4	10.0% & Above	6	2
Moderate	12.0- 14.9%	17	2	8.0 9.9%	22	3	4.0- 9.9%	7	1.5
Low	11.9% & Below	18	1	8.0% & Below	14	2	0.5- 3.9%	30	1
Non-Existent							No data	8	0

Source: See Appendix Table C-2

Appendix Table C-2

Composite Index of Student Educational Need

State and Region	Percent Children in Poverty 1980	Percent Children Served as Handicapped Fall 1979	Percent Limited-English-Proficient Children Fall 1980	Index of Educational Need	Classification on Educational Need Index
United States	15.2	9.2	5.8		
New England					
Connecticut	11.0	10.5	5.1	8.5	Moderate
Maine	14.5	10.0	3.1	11	Moderate
Massachusetts	12.7	12.4	3.8	11	Moderate
New Hampshire	8.3	5.3	3.1	6	Low
Rhode Island	12.7	9.8	4.5	10.5	Moderate
Vermont	11 [illegible]	10.3	2.2	8	Low
Mideast					
Delaware	13.9	11.4	2.4	11	Moderate
District of Columbia	25.4	2.5	2.5	12	High
Maryland	11.6	11.6	2.2	8	Low
New Jersey	13.4	11.0	6.3	11.5	High
New York	18.1	6.7	14.3	13	High
Pennsylvania	13.6	8.9	3.1	10	Moderate
Great Lakes					
Illinois	14.6	10.7	3.9	11	Moderate
Indiana	10.9	8.5	2.2	7.5	Low
Michigan	12.8	7.7	1.4	9	Moderate
Ohio	12.6	9.3	1.9	10	Moderate
Wisconsin	10.0	7.4	0.9	6	Low
Plains					
Iowa	8.9	10.6	1.0	8	Low
Kansas	9.8	8.7	1.8	7	Low
Minnesota	9.5	10.5	1.2	8	Low
Missouri	14.2	10.9	0.8	11	Moderate
Nebraska	10.7	10.4	2.0	8	Low
North Dakota	14.2	7.8	1.8	9	Moderate
South Dakota	18.5	6.9	1.2	12	High
Southeast					
Alabama	21.5	9.4	*	12	High
Arkansas	22.2	8.9	*	12	High
Florida	16.7	8.6	5.9	13.5	High
Georgia	20.3	9.2	1.0	13	High
Kentucky	22.3	9.5	*	12	High
Louisiana	23.8	9.9	5.0	14	High
Mississippi	31.3	8.5	*	12	High
North Carolina	17.4	9.5	*	12	High
South Carolina	19.3	11.2	*	13	High
Tennessee	21.3	10.6	*	13	High
Virginia	13.4	8.5	1.3	10	Moderate
West Virginia	17.3	8.5	*	12	High
Southwest					
Arizona	14.2	9.3	15.0	11	Moderate
New Mexico	21.2	7.2	25.4	13	High
Oklahoma	14.4	10.1	2.6	11	Moderate
Texas	18.4	8.8	18.0	14	High
Rocky Mountain					
Colorado	11.0	7.9	6.3	6.5	Low
Idaho	13.3	8.6	2.7	10	Moderate
Montana	12.7	7.8	2.0	9	Moderate
Utah	9.7	10.5	2.2	8	Low
Wyoming	6.8	9.3	2.1	7	Low
Far West					
California	13.8	8.7	14.1	11	Moderate
Nevada	9.3	7.3	3.6	6	Low
Oregon	10.6	8.4	2.1	7	Low
Washington	10.8	6.7	2.2	6	Low
Alaska	9.6	9.0	6.7	7.5	Low
Hawaii	11.0	6.2	12.4	7	Low

*Not available.

Sources: U.S. Department of Commerce, Bureau of the Census, 1980 Census of Population and Housing, Provisional Estimates of Social, Economic, and Housing Characteristics, Report # PHC 80-S1, Washington, D.C., March 1982; U.S. Department of HEW, National Center for Educational Statistics, unpublished data; Oxford, Rebecca; Pol Louis; Lopez, David; Stupp, Paul; Peng, Samuel; and Gendell, Murray. Changes in the Number of Non-English Language Background and Limited English Proficient Persons in the U.S. to the Year 2000: The Projections and How They Were Made. Rosslyn, Va. Inter-America Research Associates. 1980.

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Appendix D

PRIVATE SCHOOL ENROLLMENT TRENDS

Estimates of changes in private school enrollments by Census and the National Center for Educational Statistics (NCES) for the period from 1970-71 to 1980-81 are consistent in over 80% of the States. Only in 8 States do estimates differ in the direction of change. The NCES estimates growth where Census estimates decline in 7 States: Arizona, Kentucky, Louisiana, New Mexico, Texas, West Virginia, and Wyoming. The estimates are reversed for Mississippi.

There are significant differences in the estimates, however, in the magnitude of the change. NCES estimates lower declines in private school enrollments than Census in 21 States, while the reverse is true in only four States. In States where private school enrollments grew, NCES estimates higher growth rates in 14 States, while Census estimates show higher growth rates in only 3 States. The accompanying table shows the States in each of these categories.

Appendix Table D-1

Comparison of Estimates of Change in Private School Enrollments by Census and NCES, 1970-1980

NCES Estimates Show Lower Decline than Census Estimates

Connecticut
Maine
Massachusetts
New Hampshire
Rhode Island
Maryland
New Jersey
New York
Pennsylvania
Illinois
Indiana
Michigan
Ohio
Wisconsin
Kansas
Nebraska
North Dakota
South Dakota

NCES Estimates Show Increase in Enrollment Census Shows Decline

Kentucky
Louisiana
West Virginia
Arizona
New Mexico
Texas
Wyoming

NCES Estimates Show Higher Increase than Census Estimates

Delaware
Arkansas
Florida
Georgia
North Carolina
Tennessee
Virginia
Utah
California
Nevada
Oregon
Washington
Alaska
Hawaii

NCES estimates show Higher Decline than Census Estimates

Vermont
Iowa
Minnesota
Missouri

NCES Estimates show Decrease in Enrollment Census shows increase

Mississippi

NCES Estimates Show Lower increase than Census Estimates

Alabama
South Carolina
Oklahoma

Appendix Table D-2

Private School Enrollment 1970-1980

State and Region	Percent Private School Enrollment Spring, 1980 (Census)	Percent Private School Enrollment Fall, 1980 (NCES)	Change in Private School Enrollments Spring 1970-80 (Census)	Change in Private School Enrollments Fall 1970-80 (NCES)	Change in Private School Enrollments Fall 1976-80 (NCES)
United States	10.7%	11.0%	-11.4%	- 2.2%	- 3.4%
New England					
Connecticut	13.1	14.4	-21.5	-17.3	- 5.9
Maine	5.5	7.4	-10.7	- 9.1	- 5.0
Massachusetts	11.4	12.1	-43.1	-29.1	- 7.4
New Hampshire	9.3	11.0	-37.6	-24.9	- 3.2
Rhode Island	15.5	16.8	-31.4	-19.5	- 1.6
Vermont	6.7	7.3	-37.6	-37.8	-16.4
Mideast					
Delaware	17.0	19.2	+16.8	+25.6	- 6.5
District of Columbia	16.1	17.5	0.0	- 6.2	- 6.2
Maryland	12.5	12.5	-12.3	- 7.7	- 9.2
New Jersey	14.3	15.8	-29.3	-11.2	- 3.9
New York	15.3	16.4	-28.4	-22.1	- 9.5
Pennsylvania	17.4	17.6	-22.5	-18.9	- 9.3
Great Lakes					
Illinois	14.5	15.4	-24.1	-19.1	- 4.9
Indiana	9.4	8.7	-12.5	- 7.1	- 5.5
Michigan	8.3	10.4	-40.9	-19.4	- 3.3
Ohio	12.8	12.1	-21.8	-16.4	- 2.8
Wisconsin	15.2	16.4	-21.8	-14.9	- 9.3
Plains					
Iowa	9.7	9.4	-19.2	-22.0	-14.7
Kansas	7.2	7.7	-18.2	- 2.0	+ 3.1
Minnesota	11.6	10.7	-16.3	-23.4	- 5.9
Missouri	13.0	13.4	-10.4	-22.5	- 2.4
Nebraska	11.6	12.4	-26.0	-11.1	- 5.8
North Dakota	7.6	8.3	-24.6	-11.0	-17.8
South Dakota	5.4	7.8	-35.0	-10.2	- 6.8
Southeast					
Alabama	10.7	7.7	+78.6	+44.9	- 8.5
Arkansas	5.1	4.0	+33.3	+54.3	- 4.2
Florida	11.1	12.0	+35.9	+82.3	+ 1.9
Georgia	6.7	7.3	+83.5	+157.6	+ 1.4
Kentucky	9.3	9.6	- 8.4	+12.9	- 1.9
Louisiana	15.6	17.6	- 0.3	+17.4	+ 2.2
Mississippi	11.7	9.5	+60.8	-25.5	- 7.4
North Carolina	5.4	4.9	+33.7	+104.3	- 3.3
South Carolina	8.8	7.4	+83.7	+60.0	- 6.3
Tennessee	8.6	7.8	+65.3	+109.4	- 1.4
Virginia	7.0	7.0	+ 3.8	+15.6	+ 1.7
West Virginia	4.1	3.2	- 6.7	+ 7.5	- 9.6
Southwest					
Arizona	6.0	7.3	- 7.3	+35.2	+ 4.1
New Mexico	5.8	6.4	- 1.8	+33.0	+ 7.1
Oklahoma	4.5	2.8	+56.6	+30.0	+ 1.0
Texas	5.2	5.0	- 4.9	+23.6	+ 4.3
Rocky Mountain					
Colorado	6.1	6.1	-11.4	- 0.6	- 6.3
Idaho	3.1	2.9	-21.3	- 5.4	+ 0.6
Montana	4.5	4.7	-46.7	-30.1	-12.1
Utah	2.1	1.6	+15.2	+17.5	+ 7.8
Wyoming	2.6	3.0	-26.7	+34.0	-12.4
Far West					
California	10.6	11.7	+23.7	+52.9	+ 9.7
Nevada	5.5	4.3	+95.3	+123.7	+13.0
Oregon	8.0	5.7	+ 6.3	+ 8.8	+ 9.7
Washington	6.5	6.9	+ 1.8	+23.0	+ 1.3
Alaska	3.0	4.2	+ 8.0	+582.2	+16.0
Hawaii	17.3	18.4	+50.9	+70.6	+ 7.7

Sources: U.S. Department of Commerce, 1980 Census of Population and Housing, Provisional Estimates of Social, Economic, and Housing Characteristics, States and Selected Metropolitan Areas, PHC-80-S1-1; and National Center for Education Statistics, Tape from Universe of Private School Surveys 1976-81.

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Appendix E

STATE FISCAL TABLES

The following supplementary fiscal tables are included as resource information for the report.

Appendix Table E-1 Personal Income and Fiscal Effort for Education

Appendix Table E-2 Federal Revenues and Current Expenditures for Education, 1980-81

Appendix Table E-1

Personal Income and Fiscal Effort for Elementary-Secondary Education 1981

State and Region	Personal Income Per Capita		Fiscal Effort for Education	
	1981	Percent of National Average	1981	Percent of National Average
United States	$10,517	100	4.1%	100
New England				
Connecticut	12,995	124	3.6	87
Maine	8,655	82	4.6	112
Massachusetts	11,558	106	4.7	115
New Hampshire	10,073	96	4.1	100
Rhode Island	10,466	100	3.8	93
Vermont	8,654	82	4.7	115
Mideast				
Delaware	11,279	107	4.3	105
District of Columbia	13,487	128	3.3	80
Maryland	11,534	110	4.0	98
New Jersey	12,115	115	4.5	109
New York	11,440	109	4.7	115
Pennsylvania	10,373	99	4.3	105
Great Lakes				
Illinois	11,479	109	4.2	102
Indiana	9,656	92	4.0	99
Michigan	11,009	105	4.7	114
Ohio	10,371	99	4.0	97
Wisconsin	10,056	96	5.1	124
Plains				
Iowa	10,149	97	4.4	107
Kansas	11,870	103	4.2	102
Minnesota	10,747	102	5.4	132
Missouri	9,876	94	3.7	90
Nebraska	10,296	98	4.2	102
North Dakota	10,525	100	3.7	89
South Dakota	8,793	84	3.9	95
Southeast				
Alabama	8,200	78	3.0	73
Arkansas	8,042	76	3.8	94
Florida	10,050	96	3.4	84
Georgia	8,960	85	3.9	95
Kentucky	8,455	80	4.0	97
Louisiana	9,486	90	3.6	88
Mississippi	7,256	69	3.7	90
North Carolina	8,679	83	3.8	93
South Carolina	8,050	77	4.4	107
Tennessee	8,604	82	3.7	89
Virginia	10,445	99	3.9	95
West Virginia	8,334	79	4.6	112
Southwest				
Arizona	9,693	92	4.6	112
New Mexico	8,654	82	5.1	125
Oklahoma	10,210	97	4.2	102
Texas	10,743	102	4.1	100
Rocky Mountain				
Colorado	11,142	106	4.6	111
Idaho	8,906	85	4.4	107
Montana	9,676	92	5.2	128
Utah	8,307	79	5.8	143
Wyoming	11,780	112	4.9	120
Far West				
California	12,057	115	3.0	73
Nevada	11,633	111	3.0	73
Oregon	9,991	95	4.9	120
Washington	11,266	107	3.7	90
Alaska	14,190	135	7.3	178
Hawaii	11,096	106	3.7	89

Sources: National Education Association, Estimates of School Statistics, 1981-82 and Bureau of Economic Analysis, "Department of Commerce News," May 9, 1982.

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Appendix Table E-2
Indices of Federal Revenues and Current Expenditures for Education 1980-81

State and Region	Federal Share of Education Receipts		Current Expenditure Per Pupil	
	1980-81	Percent of National Average	1980-81	Percent of National Average
United States	8.2%	100	$2,436	100
New England				
Connecticut	5.7	70	2,934	120
Maine	8.8	108	2,152	88
Massachusetts	7.0	86	3,186	131
New Hampshire	4.2	51	1,985	82
Rhode Island	5.6	68	2,933	120
Vermont	6.0	73	1,969	81
Mideast				
Delaware	11.4	140	3,117	128
District of Columbia	15.8	191	3,277	135
Maryland	7.5	92	2,673	110
New Jersey	3.6	44	3,369	138
New York	4.8	59	3,577	147
Pennsylvania	7.3	90	2,645	111
Great Lakes				
Illinois	8.8	108	2,732	112
Indiana	5.4	66	2,092	86
Michigan	7.6	94	2,958	121
Ohio	7.2	88	2,261	93
Wisconsin	5.6	69	2,670	110
Plains				
Iowa	5.9	72	2,681	110
Kansas	6.1	75	2,606	107
Minnesota	5.5	67	2,857	117
Missouri	8.9	109	2,108	87
Nebraska	7.3	89	2,358	97
North Dakota	7.3	90	1,934	79
South Dakota	12.9	158	1,760	72
Southeast				
Alabama	14.4	177	1,425	59
Arkansas	13.9	170	1,614	66
Florida	10.0	122	2,357	97
Georgia	10.8	132	1,791	74
Kentucky	11.7	143	1,892	78
Louisiana	11.9	146	2,052	84
Mississippi	23.4	286	1,781	73
North Carolina	13.2	161	2,034	83
South Carolina	13.3	163	1,747	72
Tennessee	13.0	159	1,835	75
Virginia	8.7	106	2,242	92
West Virginia	11.1	135	2,132	88
Southwest				
Arizona	10.5	129	2,422	99
New Mexico	15.2	186	2,234	92
Oklahoma	10.8	133	2,211	91
Texas	10.0	122	1,923	79
Rocky Mountain				
Colorado	6.0	74	2,430	100
Idaho	7.9	97	1,778	73
Montana	8.4	103	2,595	107
Utah	6.8	84	1,903	78
Wyoming	6.1	74	2,448	101
Far West				
California	7.1	87	2,156	89
Nevada	7.3	90	2,034	84
Oregon	8.7	107	3,096	127
Washington	8.4	103	2,737	112
Alaska	12.5	154	4,955	203
Hawaii	11.4	140	2,652	109

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Source: National Education Association, Estimates of School Statistics, 1981-82.

Appendix F

ECONOMETRIC PROJECTIONS OF STATE CURRENT EXPENDITURE PER PUPIL TO 1990

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Syracuse University

Basic Approach

The method for preparing the projections involves: (1) statistically estimating behavioral equations from pooled data for the years 1977-78, 1978-79, and 1979-80; (2) projecting the values of relevant independent variables to 1989-90; (3) calculating alternative sets of values for Federal aid to States and localities in 1989-80, (4) applying the projected or calculated values of appropriate independent variables ((2) and (3) above) to the behavioral coefficients derived from the statistical estimation (1).

The approach to projecting expenditures to 1990 uses only a single equation for per pupil expenditures. Response coefficients for variables based on the pooled equations from 1977-78 to 1979-80 were used. An examination of the period prior to 1977 reveals that most relationships are essentially the same throughout the decade. One important finding, however, is that responsiveness of State school spending to Federal aid appears to have been substantially greater in the more recent period.

The projections of economic and demographic variables are derived from the best information presently available. Population projections are from the MIT-Harvard Joint Center study commissioned by the School Finance Project. Enrollment projections are derived from these population projections by assuming enrollment changes to be proportionate to changes in the population in the relevant age groups. Income and composition of production are from the Bureau of Economic Analysis (BEA) projections. Projected income is adjusted to be consistent with 1980 BEA income data. That is, projected increases in income in 1985 and 1990 are calibrated in relation to actual income in 1980.

No changes in the relative index of instructional salaries among the States are projected. We assume that the observed differentials among States in 1980 will prevail in 1990.

Three alternative assumptions regarding Federal aid are used in the projections of expenditures. One assumes the 1980 real level of Federal grants. Another is a revised set of estimates of the current administration's budget proposals. These are based essentially on the OMB's Major Themes and Additional Budget Details, Fiscal Year 1983. The reductions described there and information from the Catalog of Domestic Assistance, Special Analysis H on Federal Aid to States and Local Governments of the Special Analyses, Budget of the U.S. Government, and data provided to us by the U.S. Departments of Education and Agriculture, were used to estimate the proportionate decrease of the nominal magnitudes of the Federal aid variables used in our regression equation. Then, we apply the administration's estimated inflation rates to convert the nominal declines into real declines comparable with the 1980 levels of aid. The OMB report does not extend its projections to 1990. Generally, for 1990 we have assumed that Federal aid will remain constant in real magnitudes at the level it would reach as of the latest date for which a proposed figure appears in the volume.

A third projection of Federal aid takes a position essentially mid-way between the 1980 levels and the Administration proposals. Here in what might be called a "moderate" estimate we assume that only one-half of the nominal reductions proposed by the Administration will occur.

The following schedule shows the proportions of Federal grants in 1980 assumed to be in effect in 1985 and 1990 according to the two alternative assumptions regarding declines in grants.

	1985/1980*		1990/1980*	
Federal School Grants	Admin.	Moderate	Admin.	Moderate
ESEA	.40	.55	.40	.55
Handicapped Aid	.56	.64	.56	.64
Vocational Aid	.46	.59	.46	.59
Food Aid	.72	.94	.85	.99
Impact Aid	.33	.46	.33	.45
Federal Nonschool Grants				
State General Revenue Sharing	0	0	0	0
Local General Revenue Sharing	.71	.71	.71	.71

* Assumes an inflation rate of 30 percent between 1980 and 1985

Intergovernmental grants in 1985 or 1990 will differ from those in 1980 not only in the total amounts for various types of grants but also in grant distributions among States. We have attempted to adjust for such influences for ESEA and Impact Aid, but not for vocational and handicapped aid. ESEA is distributed among States on the basis of the number of children in poverty and State per pupil expenditure. In our estimates of ESEA by State for 1985 and 1990 we adjust the distribution so that it reflects 1980 Census measures of children in poverty. We do not attempt, however, to adjust future ESEA distributions for the effects of changing State per pupil expenditures. Impact aid in the administration projections for 1985 and 1990 is adjusted on the basis of estimates of State by State distributions under the Reagan proposals made by the U.S. Department of Education. In the moderate projections, Impact Aid is estimated from fiscal 1982 actual distributions which do not fully incorporate proposed changes.

Both handicapped and vocational aid are distributed among States according to formulas. Population, income and State programs are involved in these allocations. We make no effort to estimate changes in these factors and simply apply a common factor of reduction to the amount distributed to each State in 1980.

Projecting School Expenditures to 1990

1. The equation used to derive the response coefficients for the projections is pooled cross-section time-series weighted multiple regression. The period encompassed is 1977-78 to 1979-80 and the weights are enrollments. Twelve independent variables are used to estimate current

expenditures per enrolled pupil. The equation, presented in Appendix Table F-1, accounts for 91 percent of the variance in State per pupil expenditures over the three year period.

2. The independent variables include measures that reflect variations in ability to pay, spatial tax shifting capacity, school costs and needs, local government structure, and Federal aid. All variables are statistically significant and have the expected signs: per capita income is positive as are shares of state personal income that represent a potentially exportable tax base (mining, manufacturing, and wholesale trade). Two factors associated with higher school costs, an index of teacher salaries and the proportion of pupils at secondary level, are positively associated with expenditures. The ratio of public school pupils per capita, a measure of school fiscal burdens bear the expected negative sign as regards expenditures per pupil. Enrollment size also has a negative effect, while annual percent change in enrollment is positive. Greater reliance on State over local sources of revenues for schools has a negative effect on total school spending.

Finally, the Federal aid variables both for the education programs specified on the previous page and for revenue sharing are associated with increases in school spending. A dollar of Federal school aid per pupil increases spending per pupil by approximately a dollar and a half. Federal school aid then, is somewhat stimulative. State and local general revenue sharing, however, proves highly stimulative. A dollar of such aid per capita is associated with an additional $13 of school expenditure per pupil. Average per capita State and local revenue sharing in 1980 amounted to $30. This small amount is, in itself, not likely to have a great impact on school spending. More likely it is the association of variations in revenue sharing with variations in State/local tax efforts which explains this effect. Per capita revenue sharing is higher if State/local spending effort is greater so there probably is a positive association between per pupil school expenditures and the amount of revenue sharing per capita. This will lend an upward bias to the regression coefficient for revenue sharing. So long, however as the revenue sharing formula operates this way, the relation of school expenditures to revenue sharing will persist and the estimated coefficient will indicate the effect of revenue sharing.

3. The coefficients are derived from a regression weighted by enrollments. This has the effect of giving more influence in determining coefficients to States containing more pupils. The consequence is that the equation will better explain the determinants of expenditures for more pupils, since it gives additional weight to the States with greater numbers of pupils in the estimation of the coefficients. See Appendix Tables F-1 and F-2 for a preliminary model of expenditure determinants and the average unweighted value of selected variables.

4. The actual projections are made by applying the coefficients from the equation to projected values of the independent variables for 1990. As described above, 1990 values for per capita income and the shares of mining, manuafacturing and wholesaling come from BEA projections. Enrollments and enrollment ratios for 1990 are calculated on the basis of the Harvard-MIT Joint Center projections. The 1990 index of teacher salaries is the same as 1980; we assume relative teacher salaries among States to be unchanged.

Three different projections all use the same values of independent variables for 1990 except for Federal aid. Results of the three alternative projections of Federal aid are shown separately. As mentioned above, one assumes constant 1980 levels of Federal aid; the second projects moderate aid reduction along the lines of current proposals, but with less stringent cutbacks than in the Administration's original fiscal year 1983 proposals; the third set projects 1990 Federal aid levels as closely as possible to the reductions contained in the 1983 Administration proposals. These two latter projections incorporate substantial reductions in revenue sharing funds.

The projections have been adjusted by the ratio of 1980 actual to 1980 estimated expenditures. This approach adjusts the 1990 projection of individual States by the proportionate error for the State in its 1980 estimate, based on the estimating equation.

Results

1. As indicated above, projections of current education expenditures by States for 1990 are obtained for three alternative assumptions regarding Federal aid. See Appendix Table F-3. Also, for each assumption we estimate

Appendix Table F-1

Econometric Projections of Education Expenditures
Preliminary Model

```
DEP VARIABLE: EX70P = Current Expenditures Per Enrolled Pupil

                       SUM OF          MEAN
SOURCE      DF        SQUARES        SQUARE         F VALUE        PROB>F

MODEL       12    20695906085    1724658840         124.662        0.0001
ERROR      137     1895351603      13834683
C TOTAL    149    22591257688

     ROOT MSE        3719.500      R-SQUARE          0.9161
     DEP MEAN        1866.685      ADJ R-SQ          0.9088
     C.V.             199.257

                    PARAMETER      STANDARD    T FOR H0:                       VARIABLE
VARIABLE    DF       ESTIMATE         ERROR   PARAMETER=0    PROB > |T|         LABEL

INTERCEP     1      -2353.289       439.157        -5.359        0.0001   INTERCEPT
IC631        1       0.101097      0.018871         5.357        0.0001   PERCAPITA PERSONAL INCOME
PI340        1        553.832     65.396477         8.469        0.0001   INDEX INST. STAFF SAL.
PR641        1      12.384382      4.148855         2.985        0.0034   PERCENT MINE PRIV PROD
PR642        1       5.436926      1.697571         3.232        0.0015   PERCENT MANU PRIV PROD
PR644        1      31.097228      9.520055         3.266        0.0014   PERCENT WHOLESALE TRADE
ER5000       1      26.174521      9.444432         2.771        0.0064   PCT CHANGE IN ENROLLMENT
ER502        1      53.720444      9.185004         5.849        0.0001   PERCENT HIGH SCHOOL ENROLLMENT
ER507        1     -25.748834     10.627231        -2.423        0.0167   ENROLLMENT RATIO
FA770C       1      13.737775      3.331960         4.123        0.0001   PER CAPITA S/L REV SHARE
SR851        1      -4.734064      1.103494        -4.290        0.0001   ST SHARE OF S/L REV FOR LOC SCH
FA771P       1       1.493830      0.359432         4.156        0.0001   S/L FED AID FOR LOCAL SCHOOL
ER500        1      -0.037109      0.011108        -3.341        0.0011   TOTAL PUBLIC FALL ENROLLMENTS
```

Appendix Table F-2

Average Unweighted Values of Selected Variables

Variables	1980 Actual	1990 Estimated
IC631 - Per Capita Personal Income	$91[illegible]	$12170
PR641 - Percent Mine Priv. Prod.	3.5	3.5
PR642 - Percnet Manu. Priv. Prod.	28.1	27.4
PR644 - Percent Wholesale Trade	7.8	7.2
ER500D - Percent Change in Enrollment	-2.2	0
ER502 - Percent High School Enrollment	32.9	30.4
ER507 - Enrollment Ratio	18.9	17.1
ER500 - Enrollment (in thousands)	829	828

			1990 Estimates	
Federal Aid	1980 Actual	Estimated 1980 Levels	Moderate Level	Extreme Level
770 - Revenue Sharing per Capita	$ 30.5	$ 30.4	$ 12.4	$ 12.4
771 - School Aid per Pupil	188.0	186.1	121.9	93.9

Appendix Table [illegible]-3

Preliminary Econometric Projections of Current Expenditures Per Pupil by State in 1990

State and Region	Estimates Based On: Based on Federal Aid at 1980 Levels	Moderate Reduction In Federal Aid	Proposed Reagan Budget Reduction 1983
United States	$2,312	$1,994	$1,951
New England			
Connecticut	2,523	2,314	2,272
Maine	2,000	1,655	1,618
Massachusetts	2,885	2,592	2,541
New Hampshire	2,006	1,748	1,723
Rhode Island	2,653	2,395	2,349
Vermont	2,230	1,763	1,720
Mideast			
Delaware	2,942	2,541	2,481
District of Columbia	0	0	0
Maryland	2,589	2,277	2,229
New Jersey	3,243	2,966	2,906
New York	3,291	2,945	2,873
Pennsylvania	2,694	2,449	2,401
Great Lakes			
Illinois	2,561	2,296	2,255
Indiana	1,978	1,757	1,731
Michigan	2,870	2,571	2,533
Ohio	2,297	2,077	2,039
Wisconsin	2,360	2,051	2,020
Plains			
Iowa	2,255	1,960	1,930
Kansas	2,060	1,774	1,744
Minnesota	2,422	2,093	2,062
Missouri	1,896	1,654	1,621
Nebraska	2,153	1,837	1,802
North Dakota	1,977	1,636	1,601
South Dakota	1,690	1,318	1,274
Southeast			
Alabama	1,829	1,494	1,444
Arkansas	1,720	1,349	1,309
Florida	2,022	1,739	1,688
Georgia	1,792	1,517	1,474
Kentucky	2,069	1,729	1,685
Louisiana	1,838	1,483	1,439
Mississippi	1,621	1,107	1,055
North Carolina	2,055	1,737	1,684
South Carolina	1,855	1,513	1,464
Tennessee	1,856	1,538	1,497
Virginia	2,193	1,898	1,848
West Virginia	2,264	1,920	1,886
Southwest			
Arizona	2,104	1,727	1,687
New Mexico	1,982	1,528	1,475
Oklahoma	2,007	1,681	1,646
Texas	1,996	1,674	1,637
Rocky Mountain			
Colorado	2,535	2,201	2,168
Idaho	1,776	1,381	1,354
Montana	2,513	2,025	1,979
Utah	1,543	1,167	1,146
Wyoming	2,527	2,150	2,125
Far West			
California	2,348	1,973	1,934
Nevada	1,955	1,680	1,655
Oregon	2,583	2,182	2,152
Washington	2,663	2,397	2,361
Alaska	4,634	3,612	3,507
Hawaii	2,206	1,817	1,778

Source: Jerry Miner and Seymour Sacks, Econometric Study of School Finance and School Finance Project Staff.

an adjusted projection which applies a correction to the 1990 estimate based on the ratio of the 1980 estimate to the 1980 actual expenditure. These projected mean expenditures are as follows:

	Weighted Expenditures	Unweighted Expenditures
1980 Actual	$2090	$2037
Adjusted		
1990 - 1980 Aid Levels	2312	2281
1990 - Moderate Reductions	1994	1938
1990 - Extreme Reductions	1951	1896

2. Application of the assumption that Federal aid in 1990 remains at the real 1980 levels yields a predicted value for the weighted average expenditure per pupil in 1990 of 10.6 percent above the 1980 figure. This increase is largely attributable to projected increases in per capita incomes and in non-agricultural shares of income. States whose incomes were projected to grow more rapidly show marked increases in the dollar amount of 1990 projected expenditure over 1980 spending (e.g., Alaska). States with low 1980 expenditures and above average projected growth experience the highest projected proportionate increase in spending (e.g., Arkansas).

3. The projected decline in expenditures for 1990 is more pronounced for either the moderate or extreme reductions in Federal aid than when 1980 Federal aid levels are held constant. The large decline between the 1980 levels and the other assumed reductions levels stems from a reduction in Federal revenue sharing. This projected reduction would account for close to half of the decline in projected per pupil expenditures when weighted moderate reductions are assumed. The difference between the projected moderate reductions and extreme reductions stem only from declines in Federal education aid. Moderate reductions result in weighted average projections of 4.6

percent below 1980 actual expenditures. They are 13.8 percent below the 1990 projections based on constant 1980 Federal aid levels. The results with the extreme reductions, of course, produce even lower projections. The average projected expenditure in 1990 is an additional 2.2 percent below the moderate results. The most severe reductions are concentrated among the States which presently receive substantial amounts of per pupil or per capita Federal aid and are scheduled to have these reduced under Federal cutbacks. Such states include wealthy Alaska, but also poor Mississippi and Utah, both loosing important aid under the abrogation of State revenue sharing.

Econometric Projections of Expenditures and State Funding Prospects

A comparison of projected State expenditures levels for public school in 1990 based on the econometric model with State funding prospects estimated by the School Finance Project shows that estimates were similar in 39 of the 50 States when States were ranked as having high, medium or low expenditure prospects. See Appendix Table F-4. Differences in estimates for the remaining States probably stem in part from differences in some of the data that were utilized in the two sets of estimates and the importance attached to individual variables. Data incorporated into the model and not utilized by the School Finance Project were primarily Bureau of Economic Analysis projections of State income, and composition of production. In addition, Federal revenue sharing loomed more important in the econometric projections. This last item tended to capture revenue effort to which it is tied as well as the impact of revenue sharing funds on school expenditures. The School Finance Project relied heavily on fiscal data for the period 1972-1981 as well as its own assessments of the direction in which State economies were moving. Inevitably, some differences in estimates for individual States were bound to appear.

Appendix Table F-4

Econometric Projections of School Expenditures by State in 1990 Compared with School Finance Project's Estimates of School Funding Prospects

State and Region	Econometric Projection Based on		School Finance Project Estimate
	Real 1980 Aid Levels in 1990	Moderate Decline in Federal Aid	
United States			
New England			
Connecticut	A	H	H
Maine	L	L	L
Massachusetts	H	H	H
New Hampshire	L	L	L
Rhode Island	H	H	H
Vermont	A	L	L
Mideast			
Delaware	H	H	H
District of Columbia	—	—	H
Maryland	H	H	H
New Jersey	H	H	H
New York	H	H	H
Pennsylvania	H	H	A
Great Lakes			
Illinois	H	H	H
Indiana	L	L	L
Michigan	H	H	H
Ohio	A	A	A
Wisconsin	A	A	H
Plains			
Iowa	A	A	A
Kansas	L	L	A
Minnesota	A	A	H
Missouri	L	L	A
Nebraska	A	A	A
North Dakota	L	L	L
South Dakota	L	L	L
Southeast			
Alabama	L	L	L
Arkansas	L	L	L
Florida	L	L	A
Georgia	L	L	L
Kentucky	L	L	L
Louisiana	L	L	L
Mississippi	L	L	L
North Carolina	L	L	L
South Carolina	L	L	L
Tennessee	L	L	L
Virginia	A	A	A
West Virginia	A	A	A
Southwest			
Arizona	A	L	A
New Mexico	L	L	A
Oklahoma	L	L	A
Texas	L	L	L
Rocky Mountain			
Colorado	H	H	A
Idaho	L	L	L
Montana	A	A	A
Utah	L	L	L
Wyoming	A	A	A
Far West			
California	A	A	A
Nevada	L	L	L
Oregon	H	A	H
Washington	H	H	H
Alaska	H	H	H
Hawaii	A	A	A

Source: Jerry Miner and Seymour Sacks, Econometric Study of School Finance and School Finance Project Staff.

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Appendix C

METHODOLOGY FOR CONSTRUCTING ESTIMATES OF ADEQUATE INSTRUCTIONAL EXPENDITURES PER PUPIL FOR STATES

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Introduction

Conceptualization of the notion of adequate education has taken many forms. In terms of operational measures, adequacy can be treated in terms of inputs, expenditures, activities, test scores and other achievement measures, and postschool outcomes, including life-time earnings. Here the goal is to estimate the level of expenditure per student which would be required to provide an adequate level of schooling in each State. Estimates of required adequate spending could be compared with actual expenditure to indicate the extent to which particular States spend adequately to meet their school needs. Further, using projection methods, future expenditure needed to maintain adequate schooling by a State can be compared with projections of school expenditures in that State. All of this, however, requires a method of assessing adequate expenditures per pupil by State.

Because of the impossibility of an entirely objective standard of adequacy, the national average per pupil expenditure is considered as constituting an adequate level of spending. This level, however, is interpreted here to allow for State-by-State variations in the costs of inputs and is applied not directly to the total of school spending but rather to the various major categories of school spending: instruction: plant operation and maintenance; transportation; food; attendance, health and other; and fixed charges. The basic strategy, then, is to determine for each spending category for each State the required quantity of inputs per pupil (based on national averages) and the unit costs of inputs (based on actual input costs for a State), and to estimate expenditures per pupil needed for adequate schooling as the product of these two elements.

The major categories of school spending mentioned above are those presented in official U.S. statistics on school spending. They comprise current expenditures for public elementary and secondary day schools. Capital outlays, interest payments, and debt principal repayment do not lend themselves to the mode of estimation described above. They represent expenditures that do not reflect provision of current services to pupils but rather are a consequence of past decisions or decisions regarding future needs. There is no reasonable way to apply national norms to determine an average need for interest and debt repayment or even for capital outlay. Consequently these items are excluded from the analysis.

General Approach

As mentioned above, school spending is disaggregated by purpose or category. Instruction is the largest category, comprising some sixty-one percent of current spending in 1980. The complete set of categories and their relative shares in total current expenditure for 1980 is given in Table G-1.

Within each category spending is further divided into components. For the most part these breakdowns of total expenditure within a category separate personnel outlays from expenditures for materials and supplies. The compontents used here are based, by and large, on those found in official U.S. Government statistics on school spending published up to 1976. Since then while spending continues to be broken down by broad category, data for the components of the categories are no longer collected and published by the Federal government.

The basic strategy is to consider that the quantity of any input, whether personnel or material, required to provide an adequate amount per pupil is equal to the U.S. average per pupil amount, and hence is the same for each State. The unit cost of this input, however, is taken to be its actual cost in a particular State, and this cost may vary from State to State. Consequently, the expenditure required for adequacy can vary among States. Further, as will be explained below, while the adequate quantity of input per pupil is defined to be equal to the U.S. average, all pupils are not considered the same. Adequate input per pupil can vary across States due to variations in such factors as pupils' need for transportation and poverty status. However, input requirements for pupils of similar characteristics are uniform across States and are set at the level of the national average.

Appendix Table G-1

1979-80 Composition of US Current Expenditure for Elementary and Secondary Education, by Category

Category	Percent of Total
Instruction	61.2
Plant Operation and Maintenance	11.2
Fixed Charges	13.6
Administration	4.9
Transportation	4.4
Food*	3.6
Attendance, Health, & Other	1.1
	100.0

* 1979-80 Statistics combine expenditures for Food with Attendance, Health, and other. We used 1975-6 data to find the contribution of each subcategory to the combined total and applied this distribution to the 79-80 statistics.

Essentially then the method consists of:

1. decomposing each broad category of school spending (e.g. instruction) into exhaustive and mutually exclusive components (e.g. instructional staff, non-instructional staff, books, supplies, and other);

2. determining for each component the average quantity of input provided for the U.S. (no variation among States);

3. for each component estimating for each State its relative cost per unit of input;

4. multiplying the U.S. average input per pupil by the input cost per State to get the expenditure per State required for adequacy for each component;

5. summing the components (using weights based on the importance of the component) to get the required expenditure for the broad category;

6. Finally, summing each category (using weights based on the relative share of the category) to get the total required expenditure per pupil for adequacy as we have defined it.

The following section describes how estimates of adequate instructional expenditures were derived based on salary data of four States.

Calculation of Adequate Instructional Costs

Average instructional expenditure in 1980 amounted to $1281 per pupil. Based on some modification of data for the most recent year for which they are available, 1975-76, this total was composed of:

Instructional staff	76.8%
Non-instructional staff	5.7
Books, supplies, and other	17.5
	100%

Estimating adequate instructional staff expenditures per pupil requires a complex procedure. A relatively simple approach would be to use the U.S. average number of instructional staff per pupil as the adequate input quantity and multiply this by the average staff salary for a particular State. We recognize, however, that staffing ratios, both of classroom teachers and other staff, are higher in secondary schools as are instructional salaries. Since secondary enrollment varies from 29 to 37 percent of total enrollment among states, we decided to take account of this source of variation in determining adequate instructional spending by State. The relevant U.S. average ratios of instructional staff to pupils are:

	Elementary	Secondary
non-CRT instructional staff ratio	1/323	1/77
	(.0031)	(.013)
CRT staffing ratio (no. CRTS/enrollment)	1/23	1/14
	(.043)	(.073)
CRT salary	$15,597	$16,433
instructional staff expenditure per pupil	$740	$1,494

(CRT = classroom teacher)

The calculation of adequate instructional staff expenditures, then, is done separately for elementary and secondary pupils and a weighted average taken to get the total. Further, instructional staff is separated into classroom teachers and non-classroom teacher staff. Table G-2 shows the calculation of adequate instructional staff expenditure. Columns 1 and 3 contain the average salary for the appropriate staff which varies by State and columns 2 and 4 show the product of multiplying these salaries by the appropriate U.S. average staffing ratio. Column 5 is the sum of columns 2 and 4 and is then multiplied by the appropriate share of elementary or secondary enrollment to get column 7, which is adequate instructional staff spending per elementary or secondary pupil. The sum of elementary and secondary gives the total adequate instructional staff expenditures.

For personnel other than instructional staff we have no data on numbers of employees and hence cannot formulate a national average staffing ratio. Instead, we use the U.S. average share of instructional expenditures devoted

Adequate Instructional Staff Expenditures

Instructional staff expenditures, elementary student:

	State average CRT Salary ①	CRT expenditure per pupil (① x .043) ②	State average non-CRT Instructional Staff Salary ③	Non-CRT instructional staff expenditure (③ x .0031) ④	Total instructional staff expenditure per pupil (② + ④) ⑤	Ratio of school level to total enrollment ⑥	Contribution of instructional staff expenditure to total instruction expenditures (⑤ x ⑥) ⑦
US	$15,576	$670	$22,644	$70	$740	.67	$496
NY	19,700	847	24,756	77	924	.64	591
AR	12,090	520	16,368	51	571	.69	394
WA	18,438	793	25,342	79	872	.67	584
TX	13,802	593	19,146	59	652	.70	456

Instructional staff expenditures secondary student:

	①	(① x .073) ②	③	(③ x .013) ④	⑤	⑥	⑦
US	$16,433	$1,200	$22,644	$294	$1,494	.33	$493
NY	19,900	1,453	24,756	322	1,775	.36	639
AR	12,750	931	16,368	213	1,144	.31	355
WA	19,311	1,410	25,342	329	1,739	.33	574
TX	14,536	1,061	19,146	249	1,310	.30	393

CRT = Classroom teacher

to non-instructional personnel (5.7%) as the uniform national standard. The average monthly earnings of State and local public school non-instructional employees is the best proxy we could find for the unit costs of non-instructional personnel employed by local schools. To estimate the amount per pupil which each State would have to spend to provide this common standard of non-instructional personnel we apply an index of these earnings to the 5.7 percent share. Table G-3, columns 1, 2, and 3 show the calculation. Applying an index of salaries to a constant proportion, gives the same result as applying actual salary levels to a constant personnel/pupil ratio.

The average national per pupil spending for books, supplies and other ($224 = $1281 x 17.5) is considered as the adequate expenditure for this component for all States. The factor is added into the calculation in column 4 of Table G-3. This treatment is applied because there is a national market for books and supplies so that it seems reasonable to presume that there are no differences among States in the unit costs of these items. Thus, using the average national expenditure for each State is equivalent to taking the average quantity of books and supplies per pupil for each State and applying a common cost per unit.

The results of the calculations for personnel are combined with the assumed equivalent cost of books, supplies and other in column 6 Table G-3. The method of arriving at spending per pupil is a bit different here than in Table G-2. Here adequate expenditures are first estimated as a proportion of the U.S. average for instruction (columns 3 and 4), and then in column 6 the proportions are multiplied by this average ($1281). The totals from Table G-3, column 6, (non-instructional personnel plus books, supplies, and other) and from the top and bottom of Table G-2 column 7 (elementary and secondary instructional staff) constitute the basic adequate per pupil expenditures for instruction and are shown in column 7 of Table G-3.

Two additional adjustments were then made to derive adequate instructional spending for each State: allowances for the incidence of poor children and handicapped children. For the former, per pupil instructional costs rose by a formula that reflected the extent to which the proportion of poor children exceeded the national average in each State. For handicapped children, a national average incidence of 12 percent was assumed with unserved children estimated at 2.6 percent and additional add-on costs calculated at

Appendix Table G-3

Adequate Non-Instructional Personnel and Other Instructional Expenditures and Estimated Adequate Instructional Expenditures

	Non-Instructional Personnel						
	State average monthly earnings ①	salary index ②	Contribution to Total instruct expend (② x .053) ③	Books, Supplies, and other ④	Contribution of non-instructional personnel and books, supplies and other to total instructional expenditures. (③ + ④). ⑤	Adequate expenditure for non-instructional personnel books, supplies, and other (⑤ x $1281) ⑥	Adequate Instructional Expenditures without adjustments for Special Needs Students. ⑦
US	$ 968	1.00	.053	.175	.228	$292	$1281
NY	1174	1.21	.064	.175	.239	306	1536
AR	700	.72	.038	.175	.213	273	1022
TX	875	.70	.048	.175	.223	286	1135
WA	980	1.01	.054	.175	.229	293	1451

117 percent per handicapped child, an estimate reflecting the best available evidence of these costs. A discussion of the methodology and other assumptions made in determining adequate expenditures for all other components of current expenditures and when extra costs of special needs students are included is available from the School Finance Project.